Student Dietetic & Food Science Association

SDFSA news

spring 2007

California State University Northridge

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Advisor's Message

"Success is the good fortune that comes from aspiration… perspiration and inspiration."
(Evan Esar, early 1900s essayist).

Success is also having **D**edicated, **F**abulous members, who are all **S**ervice-oriented, with great **A**spirations for continuing with the tradition of excellence that defines **SDFSA**.

Look at just some of our programs and events, and you will agree that the Student Dietetic and Food Science Association (SDFSA) *is* about success:

- Dietetic Internship Symposium
- Nutrition Lecture Series
- Career Symposium
- Nutrition College Bowl
- National Nutrition Month event participation

… Quite an active group!

Visit our website (http://sdfsa.constellation.net/index.php) and you will appreciate even more of what goes on.

It is an honor and a joy to be associated with every **SDFSA** member. I continue to marvel at the success of what and who you are. Congratulations to all!

Sincerely,

Dr. Terri Lisagor

Letter from the President

Dear Fellow Students, SDFSA Members, Faculty, and Alumni:

It is with great pleasure and sadness that I write this final message to you, as President for the Fall 2006-Spring 2007 term. Another semester has flown by, as they always do. But as I pause to reflect, I feel *so proud* to have led the way to another very productive year for SDFSA.

The Dietetic Internship Symposium and the Career Symposium were tremendous successes. Many of our members volunteered for the Kid's Fitness Challenge at the Pasadena Rose Bowl. Because of our efforts during National Nutrition Month, we were able to share nutritional information with Liggett Elementary School parents, as well as send volunteers to participate in the CDA/LAD Tavis Smiley Road to Health Expo. We were also able to sponsor the CSUN team in the Annual Nutrition College Bowl, as they led us to a third place victory! And in just a week, we will be holding the Iron Matador cooking competition, which has already sparked the attention of many students who are not *yet* members of SDFSA!

I want to thank you ALL for everything you've done to make this all possible. Our vice presidents not only coordinated the symposia, but provided an array of Nutrition Lecture speakers. The treasurers did an amazing job in fundraising efforts and in managing our budget. The publicity officers kept our display case up-to-date and informed professors and students of event dates. I want to thank the Secretaries, Editors, Ways and Means officer, Historian, and FCS CC for your time and contributions.

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And to all the membership of SDFSA, a BIG THANKS goes out to you for your attendance and input at the meetings, for your support, your time in volunteering, and for your dues! Without you, SDFSA just could not function or serve its purpose. Last but not least, I want to thank Dr. Lisagor, our advisor, for being such an amazing mentor and friend. She is a tremendous support and leader, and brings such enthusiasm to the group.

SDFSA has awarded Yelena Nisnevich and Vilma Hernandez the SDFSA Textbook Scholarship, and Geri Lorenzana was selected to receive the SDFSA Outstanding Service Award. Our congratulations go out to you and all the other FCS Department Scholarship recipients, as well as the AAFCS and all other scholarship recipients.

Being part of SDFSA has been a very rewarding experience. Throughout our activities, we've been able to gain knowledge and experience, and also share that information with others. SDFSA is a highly organized and professional organization, and we have demonstrated that both on and off campus. To those of you who are continuing on at CSUN, I hope your membership continues and you are able to share your experiences with others. And for graduating seniors, I hope this experience has motivated you and prepared you for the exciting journey ahead. Thank you all, again, for coming together and reaching the goals of SDFSA. Good luck with the remainder of the semester and in all you do.

Sincerely,

Lisa Calanni

National Nutrition Month

Elena Dan

National Nutrition Month, which takes place every year in May, is a nutrition education and information campaign sponsored by the American Dietetic Association. Like every year, SDFSA was actively involved to support this campaign and had a variety of different volunteer opportunities to offer to its members. One of the events that I, among other SDFSA members, participated in was the Health, Fitness & Wellness Expo that was held on March 30-31st at the Convention Center of Los Angeles. This Expo provided informative workshops, free medical and dental screenings, and lots of pavilions and exhibits for children. The purpose of this event was to promote health awareness and education in our community especially targeted to children.

My volunteering position as a public speaker assistant included handing out material, assigning seats to children and making sure that the lecture ran smoothly. The speaker that I was assigned to was Susan Shapiro, PhD, MS, RD who presented the topic "Manmade versus Natural, an introduction to the meaning of some words that are listed on the ingredient section of a food label." The following are some of the major topics that were discussed in the presentation:

- ***What does the term "Natural" mean?***
- ***Everything is made up of chemical compounds, even raw foods like apples for example.***
- ***Why are there so many ingredients on some food labels?***
- ***Lecithin, an emulsifier: what is it's purpose in our food?***
- ***Hydrogenated Oils: what does it mean & what is it's purpose?***

There were a total of six presentations, each 20 minutes long and the children who attended were in the age group of 10 to 13. Susan Shapiro, who I assisted for the first four presentations, had to leave the event unexpectedly earlier. Monica Montes, RD, who was the event coordinator, invited me to step in and present the last two lectures. I accepted this opportunity and ended up presenting the last two lectures on "Natural versus Manmade" to over 50 students!

Volunteering that day was a great experience for me. I got hands-on experiences by taking over Susan Shapiro's speaking position; I met many new people in the health related field and represented SDFSA for the National Nutrition Month. I deeply encourage all SDFSA members, along with anyone else, to take advantage of the various opportunities that our student organization has to offer. You will not only find great pleasure in helping others but you will also gain experiences that will help you in your future career.

5th Nutrition College Bowl

Krista Petty

The fifth Nutrition College Bowl (NCB) was held on Saturday April 14, 2007 in Nobbs Auditorium at California State University Northridge (CSUN). This exciting day-long competition ran from 8:30 a.m. until 2:30 p.m. This annual competition had the most participants of any year, a total of nine teams. The teams represented universities from Cal Poly

San Luis Obispo, Cal Poly Pomona, Central Washington University, CSUN, CSU Chico, CSU San Bernardino, Pepperdine University, San Diego State University, and UC Berkeley. In addition to the teams, approximately 150 people were in attendance to cheer for their favorite teams.

How to Play

The NCB consists of three rounds: a preliminary, a secondary, and a final round. To decide the order of the teams competing, each team picked a number from a hat. The two teams with matching numbers were paired up to compete against each other in the preliminary round. Due to the odd number of teams, one team had to wait until the four rounds of the preliminary were over to see who they would be competing against. The preliminary produced four winning and four losing teams, but the team with the highest *losing* score was granted another chance to compete against the last team. This process was repeated in the secondary round, which decided the teams to compete in the final round. The teams to battle it out for first place were CSUN, UC Berkeley, Cal Poly San Luis Obispo and CSU San Bernardino. In the end, first place was awarded to UC Berkeley, Cal Poly San Luis Obispo received second, and CSUN placed third.

NCB History

The NCB began in 2002 as College Nutrition Bowl. The goal of the competition was and still is to encourage education, teamwork, and cooperation among nutrition and food science students. Currently the NCB invitation goes out to all American Dietetic Association (ADA) Area One schools. These include all colleges and universities within California, Hawaii, Oregon, and Washington. The NCB takes the entire year to coordinate, fundraise, and plan. The Marilyn Magaram Center, the main sponsor of this event, has begun compiling notes from the 5th NCB and is already in the early planning stages for the 6th NCB. Each year the competition takes place during the spring semester.

5NCB

Sandra Jersby, one of the MMC Administrative Assistants, was in charge of coordinating this year's competition. According to Sandra, holding the position of coordinator was "a fantastic experience that has given me great insight into how much preparation and planning it takes to put on a big event like this." The NCB is nothing new to Sandra, who has worked at the MMC for three years and has participated in the planning of three NCB competitions. Although she has been involved, this year was her first as the NCB coordinator. Sandra humbly stated that, "planning for the 5NCB was truly a team work experience. Each task was divided up amongst the MMC staffers including Ava McKay, Sabrina Kim, Anna Abulyan, Annette Besnilian (MMC Associate Director), and Dr. Chen (MMC Director)."

For more information about the NCB, please visit the MMC website at: http://hhd.csun.edu/magaram/files/home.htm and click on the NCB icon. The website is updated frequently, so be looking for news about the 6th NCB to be held in spring 2008!

A Special Thanks to the 5NCB Volunteers!

Charlene Barrion
Diana Benitez
Aaron Brewster
Lisa Calanni
Natalie Cashin
Roza Chirishyan
Dena Ciolfi
Bianca G. Contreras
Elena Dan
Maya Davis
Brooke Dawson
Brandi DelaFuente
Cathy Fusano
Mareena George
Anna Gomez
Vilma Hernandez
Cheri Kaczmarek
Angelina Kouzmenko
Dahlia Lavi
Alissa Lippman
Geri Lorenzana
Abeer Lutfi
Amanda Margoles
MaryLou Marinas
Melody Murphy
Sepideh Nassiripour
Jennifer Park
Isabel Saghian
Lucine Sedavtyan
Tamanna Seyed-Kazemi
Caroline Shabtai
Hasmik Siwajian
Karin Sokel
Mahvash Soleymanzadeh
Yalda Souri
Karina Souw
Jessica Stavis
Maryam Y. Tafti
Crystal Turner
Linda Valenzuela
Anesha Varnadore
Shani Verchick

Career Symposium

Ava McKay

SDFSA hosted its annual Career Symposium on Saturday, April 28, 2007 in Nobbs Auditorium on the CSUN campus. This year's event was a huge success with ten speakers and over 50 students in attendance. Speakers presented on various careers in nutrition, dietetics, and food science. Several clinical and administrative dietitians spoke to students about the many careers in hospitals, foodservice, and community sites. Additionally, there were presentations about careers in sports nutrition, food and product development as well as food science. California Chicken Café was served for lunch along with salads donated by Gelson's Market.

To wrap up a wonderful day, many wonderful door prizes were raffled off to several lucky ticket holders. Prizes included various CDs, DVDs, Starbucks coffee, a digital camera, and a massage gift certificate. Thank you to our Ways and Means Officer, Sarah Kang, for coordinating the raffle. Proceeds from the raffle ticket sales go to support our organization and help fund our Book Scholarship and Outstanding Service Award which we offer each year.

The symposium would not have been possible without the diligence and support of all the SDFSA officers, members, and our faculty advisor, Dr. Lisagor. Everyone graciously volunteered their time and resources to help make this year's symposium the best one yet. Thank you again to everyone for their help and support.

Pictured Above: SDFSA members Cathy Fusano, Diana Benitez, and Sarah Kang help sell raffle tickets!

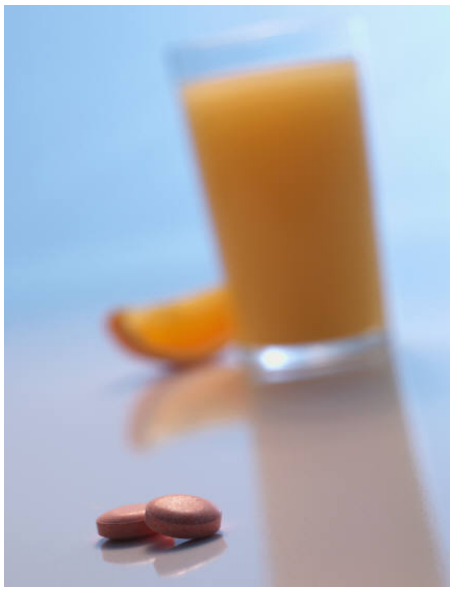
Dietary Supplements: Harmful or Beneficial?

Anna Abulyan

Whether one should take nutritional supplements or not has been controversial. The American Dietetic Association believes "that the best nutritional strategy for promoting optimal health and a wide variety of foods" (2). However, supplements can help some people meet their nutritional needs as recommended by the Dietary Reference Intakes (2). This issue is still a rising problem, in which individuals and professionals have become confused because of the different established positions on whether supplements are recommended or not. Nutritional supplements are defined as a nutrient or group of nutrients, such as vitamins, minerals, proteins, fats, carbohydrates, and oils that are meant to be added to something to complete the nutrients, it makes up for a deficiency, or extends or strengthens the whole (3). The nutritional supplements come in different forms, such as pills, powders, capsules, liquids, or gels (3). The main argument concerning supplement intake is that there are no federal regulations that standardize quality of ingredients contained in these products (1). According to Brown, no testing is done on some of the actual products that we see on the shelves in the stores (1). This is the reason many professionals have set their own guidelines as to whether supplements are harmful or beneficial. Another argument towards not taking supplements is that individuals should consume a variety of nutrient-dense foods in moderation, so they will not need nutritional supplements (2). The individual should consume a variety of foods and beverages because these contain vital macronutrients and micronutrients, including water, dietary fiber, pigments, and other useful non-nutrient components (2). Many students take a multivitamin supplement as an insurance policy, because they are not sure they are eating well. However, by taking supplements the individual may be missing other nutrients, such as proteins from foods. When one consumes a variety of nutrient-based foods in moderation he/she will gain a balanced diet with needed nutrients. The third controversy is that nutritional supplements may cause an interaction with certain drugs in which the individual is taking due to health issues. For example, people taking Warfarin are sensitive to fluctuations regarding intakes of nutrients like Vitamin E and Vitamin K (2). The fourth controversy concerning dietary supplement intake is that one might not realize the recommended amount for individuals. An

unnecessary amount may become toxic. Nutrient supplements are concentrated sources of nutrients, which are not chewed or accompanied by water or macronutrients, in which they pose a greater risk in toxicity interactions (2). Although nutritional supplements may be viewed negatively, there is more research needed to verify the actual outcomes of nutritional supplements.

The other position held by professionals and individuals is that nutrient poor foods and nutritional supplements are beneficial and necessary for optimum health (1). Supplements will provide nutrition that may be missing from our food. Dietary supplements provide a nutrition facts label which gives the consumer guidelines on how much supplements to take. Another benefit to taking nutritional supplements is that an individual may be malnourished or undernourished. In the United States there are people who are overweight, but undernourished. These people consume more calories than they need without meeting recommended intakes for several nutrients. Individuals need to improve their diets by consuming nutrient-dense foods to receive the nutrients needed. Nutrient-density is a relational term and is defined as the ratio of the amount of a nutrient in foods to the energy provided by these same foods (2). Therefore, the person needs a more vitamin and mineral-rich diet relative to its



caloric content to receive higher nutrient density (2). This is why a person who lacks the nutrients may be able to take supplements to complete the necessary nutrients. Also, being a vegetarian can cause a deficiency in nutrients, such as Vitamin B-12. In some cases, use of supplements can be helpful in meeting recommendations for individual required nutrients.

The different positions cause confusion among people who think about taking nutritional supplements. It is important when using supplements to inform health care providers and strive for consistency to achieve the intended outcomes. This is especially important if a person is taking prescribed medication because it may cause interactions and lead to problems. Also, when purchasing dietary supplements, one must be cautious in the supplement he/she buys. Experts say "the supplements must deliver consistent quality over time and recognized quality- control procedures in place" (2). As a result, by standardizing the frequency, method and pattern of consumption, an individual will have a better chance to predict the supplement's overall effect on the body (2). For example, in the Journal of American Dietetic Association, an individual absorbs less calcium if he or she takes an entire day's dose of calcium at one time instead of taking the same total amount in divided doses leading to <500 mg throughout the day, with consistency in time (2). Therefore, experts believe that consuming dietary supplements in consistency will prevent harm to the body.

1. "Nutrition Supplements." 7 March 2007. Brown University Health Education. 2 Apr 2007 <http://www.brown.edu/Student_Services/Health_Services/Health_Education/nutrition/supp.htm>.

2. "Position of the American Dietetic Association: Fortification and Nutritional Supplements." Journal of the American Dietetic Association August 2005 2 April 2007 <http://www.eatright.org/ada/files/fort.pdf>.

3. "Supplements." American Heritage. 2007. Houghton Mifflin. 2 Apr 2007 <http://education.yahoo.com/reference/dictionary/entry/supplement>.

A Healthy *Enova*tion!

Diana Benitez

We hear a lot about the importance of the total fat that is consumed, but that it is the **type** of fats you are choosing that really makes the difference. It has been found that unsaturated fats compared to saturated fats are a far more heart healthy choice. Recently, a new type of oil has been continuously discussed as a new prospect to reducing the risk of heart disease. The oil is called diacyglycerol (DAG) and is sold as cooking oil known as Enova™.

Most conventional cooking oils contain fat molecules that are known as triacylgly-

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-cerols (TAG). TAG oil has three fatty acids attached to a backbone, the glycerol molecule. DAG oil also has a glycerol molecule attached to fatty acids; however, it only contains two of them. Although DAG oil is also a naturally occurring component of conventional cooking oils, it is found in very small quantities. After years of research on DAG, oil the Kao Corporation in Japan found a process that would convert the natural occurring TAG in soy and canola oil into DAG oil. The result was Enova™, which is a mixture that contains 80 percent DAG oil (1).

How does it work? In the body, both TAG and DAG oils are broken down into their glycerol and fatty acid components for absorption. Once absorbed into the body, they are metabolized in different ways. While the components of the TAG oil are reassembled, DAG oil is not. Studies suggest that the DAG oil that contains the two fatty acids in position 1 and 3 on the glycerol backbone are especially effective. Due to the difference in the structure of the DAG and TAG oil, 1, 3-DAG oil is broken down in the liver and less of it is stored as fat (2). Studies also suggest that it has the ability to increase b-oxidation, resulting in the suppression of fat accumulation, as well as enhancing weight loss (3).

According to the 2005 Dietary Guidelines, consumers should consume a diet that contains mostly polyunsaturated and monounsaturated fats, while limiting their intake in saturated fats, cholesterol and trans fats. Because DAG oil contains mostly polyunsaturated fats, it fits these guidelines (2). It is important to note that Enova™ is not a fat substitute and it has essentially the same amount of calories as the oil it was made from. Also, since its introduction to Japan in 1999, there have been no known adverse digestive side effects with this type of oil. The FDA has included Enova™ in its GRAS (generally regarded as safe) list (1). Enova™ has a mild flavor and because it is a fat, it does not change the texture of foods. It can be used for baking, sautéing, salad dressings or anything else that requires oil.

With obesity and risk of heart disease on the rise, it is good to know that Enova™ may be an effective tool to aid in a healthier lifestyle. Remember, while your total fat intake is important, it is even more significant to consume the right kind of fat.

1. *About Enova*. Enova. Retrieved on February 28, 2007 from http://www.enovaoil.com/about/faq.asp

2. *Diaclyglycerol Cooking and Salad Oil: A Key to Maintain Good Health* (2005). Nutrition Fact Sheet. Retrieved on February 28, 2007 from http://www.eatright.org/ada/files/0405-enova-factsheet(1).pdf

3. Rudkowska, I, et al. (2005). Diacyglycerol: Efficacy and Mechanism of Action of an Anti-Obesity Agent. *The North American Association for the Study of Obesity*. Retrieved on February 28, 2007 from http://www.obesityresearch.org/cgi/content/abstract/13/11/1864

Cocaine: The Energy Drink?

Dahlia Lavi

Many know that cocaine is an illegal drug. However, did you know that there is now a new drink called Cocaine? Cocaine as the energy drink, was introduced in September by Jamey Kirby. It is a legal alternative to the drug cocaine (1). With about 280 milligrams of caffeine per serving of 240 ml, it provides about 350% more energy than other drinks like Red Bull. Caffeine is considered to be a type of drug that can change the way in which the central nervous system works. It is obtained from coffee bean, tea leaf, kola nut and cacao pod (3). Cocaine is sold only at select stores. Seven-eleven has banned this energy drink; however, certain places in Georgia, New York, Northern New Jersey, Los Angeles, Dallas, Florida, and Connecticut do sell this new product (2).

Jamey Kirby invented Cocaine to be used as a legal alternative to the drug. It is formulated to consumer's feelings of being high. Within five minutes of consuming the drink, the person has a tingly euphoric sensation. After 15 minutes of drinking Cocaine, the caffeine kicks in. The manufacturer states that even though this drink provides plenty of caffeine, the person drinking it will not undergo the sugar crash or the jittery effect that many other

caffeinated energy drinks cause (1).

According to The Daily Show, Cocaine energy drink "tastes 'disgusting,' and the creator says it is designed to burn and irritate the throat and sinuses in the manner of its name sake" (2). Jamey Kirby does admit to this; he mentions that there is an anonymous secret ingredient that purposely gives a burning sensation.

It does not matter what the energy drink is, all energy drinks can be harmful. The energy drink Cocaine is aimed for children and young adults. As soon as they look at the name of the product, they will want to buy it. Dr. Charles O'Brien quotes, "It's just a bad idea and has all the same downsides of too much caffeine plus a very bad name" (1). It if was any other energy drink with a different name that was not as controversial, then there would be no problem. To correspond with Dr. Miriam Kaufman of the Hospital for Sick Children, the name of this product is sending out the wrong message (3). It is advertised as a means of legally getting "high" for those who do not want to illegally get high.

The average amount of caffeine that should be consumed is: 400-450 mg. per day. Having too much caffeine can create headaches, irritability, nervousness, anxiety, dehydration, etc. (3). To avoid risking your health, decrease the amount of caffeine you intake each day and try to avoid any energy drink that will have more than 400-450 mg. caffeine. Below is a list of ingredients in Cocaine along with their descriptions (4):

Caffeine: stimulates the brain and circulatory system. Enters into the blood stream in a short time (about 10-15 minutes) Caffeine effects last for 3-4 hours.

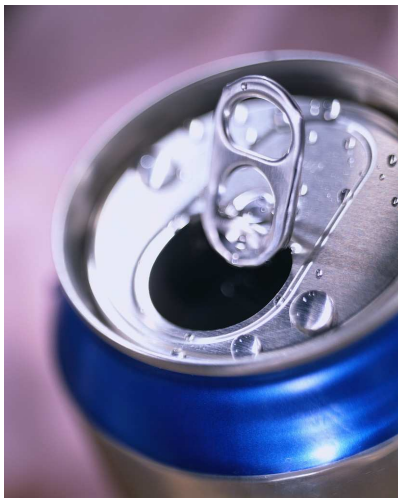
Taurine: an abundant amino acid found naturally in the body. It enhances glucose and amino acid transport to the muscles and helps regulate the nervous system.

Guarana: seed from South America. Naturally contains caffeine. Used as a source of energy.

Dextrose: a monosaccharide or simple sugar that is about 20% less sweet compared to cane sugar. Dextrose is a great additive to your regular creative monohydrate for post-workout.

Vitamin C (Ascorbic Acid): required for the immune system. Helps produce white blood cells and T-cells.

Vitamins B6 and B12: assist the body in converting the nutrients in food into energy. Help counter the effects of



fatigue and nervousness. Improves performance and stamina.

Inositol: aids in digestion, the breakdown of fats, and reduces cholesterol in the blood. Helps prevent hardening of the arteries and may protect nerve fibers from excess glucose damage.

1. The Ultimate Energy Drink. *ABC News Health.* Retrieved March 6, 2007 from http://abcnews.go.com/Health/story?id=2459718&page=1.

2. Wikipedia, The Free Encyclopedia. (2007). *Cocaine (drink)*. Retrieved March 6 2007 from http://en.wikipedia.org/wiki/Cocaine_(drink).

3. City News. *Doctors Warn Against "Cocaine" Energy Drink* (2007). Retrieved March 6, 2007 from http://www.citynews.ca/mews_6870.aspx.

4. Cocaine Energy Drink retrieved on March 6, 2007 from http://www.drinkcocaine.com/ingredients.php.

Grape Seed Oil: The Better Choice

Yalda Souri

Grape seed oil has been around for many years, but it was not until recently that scientists learned about its health benefits. Centuries ago wine makers discovered that an oil extract can be made from grape seeds. Many years later scientists noticed that as grape seed oil consumption increased, the number of incidences of heart disease declined. Grape seed oil is a very unique product; besides its role in heart disease, it plays a role in growth and development, can serve as an antioxidant and has its own flavor and aroma (1).

Grape seed oil has many unique properties, one of which is the ability to decrease Low Density Lipoprotein (LDL) levels. Studies show that grape seeds can help decrease LDL levels while increasing High Density Lipoprotein (HDL) level. Therefore, the grape see may reduce one's risk for heart disease (1). Furthermore, grape seed oil is a better choice than olive,

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sunflower or canola oil in terms of its polyunsaturated fatty acid (PUFAs) content. It has higher omega 3 and 6 (PUFAs) and lower saturated fatty acids content compared to olive or canola oil. These fatty acids play a very important role in growth, development and brain function (2).

Furthermore, compounds found in flavonoids and phytochemicals found in grape seed oil are known to have antioxidant properties. Antioxidants are compounds that help deactivate free radicals, which may contribute to the aging process, heart disease, and cancer. Free radicals are substances that alter cell membranes, interfere with DNA synthesis, and damage normal cells. Therefore, antioxidants may decrease risks for heart disease, cancer and many other health conditions (1). In addition, Proanthocyanidins (PCOs) are also antioxidants that can be found in grape seed oil. This compound may help strengthen and protect blood vessels which can serve as a means to treat vascular disorders (2).

One of the reasons why grape seed oil is a healthy choice is its relatively high smoke point of 420 °F. This means that it is more resistant to oxidation or free radical formation (cancer causing compounds). Even though grape seed oil is known for its health promoting properties, it is also known for its unique flavor and aroma. It has a very distinct nutty flavor and it can be used in salad dressings, marinades, mayonnaise, or even baked goods (1, 3).

Grape seed oil helps promote ones health and improve flavors in foods all at the same time. It is a good source of antioxidants, omega 6 and omega 3. Grape seed oil may help reduce one's risk for heart disease and cancer by decreasing LDL levels as well as eliminating free radicals. Further studies need to be conducted to learn more about its health benefits. Overall, grape seed oil is a wonderful product to use.

1. Ayais Grape Seed Oil,Grape Seed Extract (OPC). (n.d.) Retrieved February 19, 2007, from http://www.ayais.com/en/nature/grapeseedoil.htm

2. Grape Seed Extract Explained. (n.d.) Retreved February 18, 2007, from http://www.lifescript.com/channels/food_nutrition/herbsgrape_seed_extract.asp?trans=1&gclid=CNuH88LS2YoCFQfQhgodkHoKxQ&ef_id=1350:3:7a46f534b6564e24600d52a0802dac0d_561267665:KF9ZSEGvMVEAAC67fRcAAAAN:20070303222220

3. Grape Seed Oil. (n.d.) Retrieved February 19, 2007, from http://www.answers.com/topic/grapeseed-oil

Why is Breast Milk Special?

Caroline Shabtai

Breastfeeding is the best nutrition that only a mother can provide for her newborn. The mother and her baby can both benefit from it, even if it is for a short period of time. Breastfeeding offers a type of physical contact between the mother and her child which helps the mother to bond with her baby and for the baby to feel more secure and comforted by the mother.

Breast milk is very unique and is the most complete form of nutrition for an infant. It is the perfect food for a newborn that cannot be duplicated. Most babies can digest it easier than infant formula or any other substitutes. This milk contains the right amount of fat, lactose, proteins, vitamins, minerals, and water which are needed for baby's growth and development. The composition of human breast milk is continually changing to meet the nutritional needs of the growing infant (1).

American Academy of Pediatrics (AAP) and U.S. Department of Health and Human Services recommends that an infant should be fed only with breast milk for the fist six months of the infant's life and he/she does not need supplements like water, juice, or other fluids during this time. Other liquids decrease the infant's intake of the adequate vitamins from the breast milk. After the first six months, solid food can gradually be added to the baby's diet while continuing breastfeeding through the first year of his/her life and even beyond that if desired. (1, 2)

The breastfed infant will grow in a healthy way and gain less unnecessary weight. This is important because the infant has a smaller chance of having weight problems in the future (3). Breastfed children score higher on cognitive and IQ tests and also on tests for visual acuity. Premature and low birth weight infants who were breastfed have higher brainstem maturation than those who were fed formula (4).

Breast milk is completely sterile, thus no bacteria can be given to the infant from

it. Breast milk provides the initial immunity for an infant's body. The first milk is called colostrum, which is a thick and yellowish milk that contains antibodies to help protect the infant from bacteria and viruses and assists in the development and strengthens the immune system. Infants who are breastfed are less likely to get sick and are more able to fight with infections and diseases like diarrhea, ear infections, meningitis, and respiratory illnesses such as pneumonia. These infants have a lower risk of Sudden Infant Death Syndrome (SIDS), childhood and adolescence obesity, diabetes, and allergies (2). Breastfeeding can lower the chances of an infant acquiring eczema and asthma (5). Breast feeding helps prevent dehydration when a child is sick and doesn't have appetite or has diarrhea. It also reduces the risk of malnutrition and promotes catching up with growth after an illness (2).

In addition to benefits for the child, breastfeeding has several benefits for the mother. A nursing mother needs additional calories in her diet, and makes it easier for her to lose the extra weight she gained during pregnancy. The breastfeeding mother experiences a faster recovery after childbirth and it reduces any bleeding that she may have after giving birth. Mothers who breastfeed lower their risks of anemia by delaying the menstrual cycle and their normal ovulation. They also reduce their chance of getting pregnant. The woman who breastfeeds her child has a lower risk of developing ovarian and breast cancers. Breastfeeding also reduces osteoporosis (6, 7).

Purchasing, measuring, mixing and warming up the bottle of formula milk is costly and time consuming. When the baby is hungry, mother can satisfy her child by providing her breast milk right away. Breastfeeding offers both the mother and the baby some quiet and relax time together.

Some mothers think that when they are sick, they should not breastfeed their babies. However, their breast milk contains the antibody which is helping to protect the child from getting that same illness (6).

Depending on what the mother eats, there is a slight chance for the infant to have a reaction to it. This doesn't necessarily mean that the baby is allergic to breast milk. The infant could be reactive only to what the mother eats. If the mother changes her diet, the reaction will go away (7).

Sometimes it is not possible to breastfeed a sick or premature child. In this case after consulting with a doctor, the mother can pump and store her milk and give it to

her child via feeding tube or bottle (7).

Although breastfeeding is the ideal form of nutrition for an infant, it is not recommended for some mothers and babies. For example, it has been suggested that mothers who are involved in chemotherapy or who are infected with human immunodeficiency virus (HIV) avoid breastfeeding if possible. In these cases infant formula is a good alternative (8).

Some infants are borne with galactosemia, a genetic metabolic disorder in which they lack the enzymatic ability to break down galactose, thus they can not tolerate human or animal milk. Babies with this condition should be fed a diet free of lactose and galactose (9).

Breastfeeding is by far superior to all alternatives. It has a well balanced mixture of nutrients and antibodies that cannot be found in artificially made infant formula mixtures. Unless it is contraindicated, mothers should try to breast feed their infants, especially in the first six months of the infant's life. In addition, the feeding time is the important time that mother and her child can connect emotionally and physically with each other.

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Prickly Pear Cactus: Friend or Foe?

Geri Lorenzana

Driving through the California desert, your first impression might be that of a wasteland. However, a closer look would reveal a food source full of nutrients such as water, carbohydrates, protein, fiber along with vitamin C and beta carotene (Paradise, 2005). The prickly pear cactus has long been a food staple of the Mexican diet and is found mostly in the Southwest of the United States, northern Mexico and parts of South America. The edible portions of the prickly pear cactus are the cactus fruit (*tuna*) and the young cactus leaves or pads (*nopales*) (Kittler & Sucher, 2000).

Cactus fruit

Cactus fruit contains considerable amounts of vitamin C (200 to 400 µg g^{-1}) (Cantwell, Prickly Pear). Each flower of the prickly pear cactus yields one fruit which can be peeled, eaten raw and has a taste similar to watermelon. However, because of the numerous seeds, it is more often made into jelly, juice, candy or wine. The cactus fruit should be harvested from September to November and harvested only when ripe. Once picked, the fruit has a very short shelf life of less than a week (Savio, 1989).

Cactus pads or nopales

The chemical breakdown of the 300 varieties of prickly pear cactus varies somewhat by species. The pads or nopales are comprised approximately of 92 to 95% water, 4 to 6% carbohydrates, including fiber of 2 to 6% and 1 to 2% protein. Nopales also contain some minerals and moderate amounts of vitamin C and vitamin A (Cantwell, Nopalitos; USDA, 2006). It should be noted that prickly pear pads *appear* to be a good source of calcium based on compositional analysis. However, the calcium is in the form of calcium oxalate crystals and oxalate *binds* the calcium in a state that renders it unavailable for absorption by humans (Mcconn & Nakata, 2004). A 2006 study in Mexico found that samples of both commercial and wild cacti pads were potentially good sources of the anti-oxidants lutein and beta-carotene (Betancourt-Dominguez et al., 2006).

The pads are categorized as a vegetable and have a taste somewhat like green beans. Young bright green pads are available fresh, jarred or canned and are called nopalitos when they are diced. Fresh can be purchased "spineless", but it is recommended to cut off the edges or peel them entirely. Sliced nopales may be boiled in water, drained and boiled again to reduce any sliminess. Yvonne Savio of Small Farm Center, University of California states, "They (the pads) can be eaten raw in salads, boiled and fried like eggplant, pickled with spices, or cooked with shellfish, pork, chilies, tomatoes, eggs, coriander, garlic, and onions" (Savio, 1989).

Medical uses

The Mexican community will sometimes utilize the cactus pads for medicinal purposes. The prickly pear cactus has been used to treat ailments ranging from minor cuts to diabetes and hangovers. However, only sporadic clinical research has been done over the last three decades to substantiate these claims. Most of the studies center around a dozen species belonging to the *Opuntia* genus and the commercial plantings of nopalitos are primarily from *O.ficus-indica* and *O.inermis* (Prickly Pear Cactus).

Anti-inflammatory & Alcohol Hangovers

People will sometimes mix the juice or dry powder of the *O. ficus-indica* pads with water and use this topically as a salve on minor cuts. The resulting gel is said to sooth the skin similar to *Aloe vera* preparations. One study identifies β-sitosterol as the active agent (Stintzing & Carle, 2005; Park et al., 2001). Even though this initial study indicates some promising results, the clinical effectiveness of topical *O. ficus-indica* pads remains unclear at present.

Does O. ficus-indica have a reducing effect on alcohol hangover? A 2004 study published in the Archives of Internal Medicine notes there could be some evidence that an extract of *O. ficus indica* has a moderate effect on reducing hangover symptoms, possibly by inhibiting production of inflammatory mediators (Wiese et al., 2004). However, an assessment of the clinical evidence, published in a 2005 issue of the British Medical Journal, states there was no compelling evidence that suggests *O. ficus indica* is effective in treating or preventing alcohol hangover. Some of the conclusions of the 2004 study were open to question and therefore, future studies are needed to disentangle the pathology of hangovers. Overall, the most effective way

Diabetes

Preliminary clinical evidence in animal models indicates the broiled stems of *O. streptacantha* may decrease blood glucose levels. A study published in the *Archives of investigative Medicine* indicated that 500 mg of boiled pads resulted in a drop of 8 to 31% in blood glucose readings. The high soluble fiber content (including pectin) in nopales is thought to play a role in reducing the blood sugar levels as well as blood cholesterol levels (Frati-Munari et al.,1990). Current properly designed controlled studies are needed to corroborate these findings.

On a precautionary note, blood glucose levels should be closely monitored by a physician if consuming large amounts of prickly pear cactus as well as diabetes medications. These additive effects could potentially cause hypoglycemia (Prickly Pear Cactus).

Insects: Cacti lovers

The cochineal insect, which provides the red pigment we see as a coloring agent in additives, also feeds on the cacti from the *Opuntia* genus (Savio, 1989). This insect has lived harmoniously with the prickly pear cactus for centuries.

Unfortunately, a harmful insect now threatens our native prickly pear cactus. The South American cactus moth has moved to the North American continent. Larvae of this moth can completely destroy a cactus plant. Entomologists with the ARS Crop Protection and Management Research Unit are mass-rearing the moth on an artificial diet, inducing sterility in the male moths and releasing these moths in the wild in hopes of producing infertile offspring to reduce the moth population (Durham, 2006).

Conclusion

The nopal is a major national symbol in Mexico. On the Mexican flag, an eagle stands atop of the prickly pear cactus. This cactus has been used as forage, building material and a source for natural colors (Stintzing & Carle, 2005). There are many aspects of the prickly pear cactus yet to be explored, both nutritionally and medicinally. By studying the cultural foods of our neighbors we open the doorway into a rich history that helps us to understand one another and tie us closer together.

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All Good Things Come to an End

An Interview with Professor Deirdre M. Larkin, M.S., R.D.

Caroline Shabtai & Taraneh Tamaddon

Throughout the past two decades, many things have changed the FCS Department. The building we inhabit, for example, was built after the '94 earthquake to become the beautiful Sequoia Hall; our department name transformed us from 'Home Economists' to the more representative Family and Consumer Scientists; the halls have been the background for new club/organizational bulletin board displays each semester, reflecting the ever changing seasons.

However, amidst all this change, one thing has managed to stay the same: Room 200A. This tiny room has been the office of Professor Deirdre Larkin. By occupying this room, Professor Larkin, known to many peers, students, and alumni simply as 'Dee', has taken the art of reaching out to members of this vastly expanding field to incomparable levels. From a recipe for the perfect meringue, to the recipe for juggling family life and a career, Professor Larkin is not just an infinite supply of 'pearls of wisdom', but she is also a leader at the forefront of providing services in family and consumer life.

After eighteen years of superb service at CSUN, Professor Larkin is retiring. On July 31st, 2007, Room 200A will be locked for the last time by Professor Larkin, as that will be her last day as a faculty/staff member of California State University, Northridge. Here, in this excerpt, is an interview with the expert in food science about her past, present and future in FCS.

Q) What is your degree in?

I received my Bachelor's in Psychology from the University of Redlands. I also have three Teaching Credentials: Restricted for Deaf and Hard of Hearing, Early Childhood Education and Standard Elementary. My Master of Science Degree is in Family and Consumer Sciences, which was called Home Economics at the time, from CSUN.

Q) How did you become interested in nutrition and food science?

This is my second career; my fist career was Hearing Impaired Education in public elementary school where I taught deaf students. I then became certified as a sign language transliterator. After that, I began work at CSUN as a Sign Language Interpreter, which I did for eight years. I became interested in nutrition and food science from a personal perspective. As a teenager, I used to be overweight and lost forty five pounds. Since then I have been focused on nutrition and food. I now weigh one pound less than when I graduated from high school!

Q) How long have you been working at CSUN in FCS?

Eighteen years as part-time faculty and part-time staff. I first began in fall 1988 by team teaching with Dr. Lisagor in FCS 302. In spring '89 I stayed home and prepared for RD exam which I took and passed in April '89. In the fall of 1989 I began real working experience teaching FCS 201 as well as FCS Instructional Support Assistant (part-time staff).

Q) What are your best memories at CSUN?

My best memories all include my students. I had the opportunity to be the Chairperson of the SCIFTS event at the food industry conference in 2002 which was written about in LA Times. The event was "Culinology, the Marriage of Culinary Art & Food technology." I also served as the Associated Director of the

Marilyn Magaram Center (MMC). I worked with the Maternal Phenyl Ketone Uria (MPKU) Camp at CSUN in the summer as a liaison, coordinating the State Department of Health Services and the MMC. Some other memorable accomplishments include starting the Lab School Project with Dr. Terri Lisagor; I enjoyed having the Sensory Evaluation experience with Chef America, an internship through the MMC where sensory panels taste-tested 'Hot Pockets'. I also started the Brown Bag Film Series. Above all, being the Director of Didactic Program in Dietetics (DPD) was an unbelievable challenge and I am very fortunate that I had the opportunity to do it.

Q) Upon retiring, what will you miss the most?

The students and my office.

Q) What are your plans after retiring?

I will enjoy spending time with my grandchildren. I have six of them and one on the way...and travel! My husband and I are planning to travel to Africa in June 2008.

Q) Will you still offer advisement by appointment for general topics or consulting?

I still wish to keep ties with the FCS Department and the MMC, as well as stay available as a consultant.

Q) Would you be interested in media, like going on talk shows, radio or public access TV?

I have done some during my occupation at CSUN. On NBC I spoke on using plastics in microwave ovens; on KNBC I recently commented regarding the spinach—E. coli outbreak; I have done some panel type discussions through cable from the university. However, I will not be doing any more; it's just not a thing for me. I am more of a 'behind-the-scenes' consultant.

Q) When is your official last day of work at CSUN?

July 31st 2007 is my last day.

Q) What are your last words of wisdom to CSUN students?

Keep your eye on the prize and… if you always do what you have always done, you will always get what you always got.

Q) Is there anything else you want to share with us?

I'll try not to cry at the end in public. However, I know I will cry in private. You all have great, great gifts and need to capitalize your strengths and explore your talents. Nothing comes easy; everything we have now we worked hard for.

It becomes quite apparent at the beginning of this interview that Professor Deirdre Larkin has been an educator all her life. CSUN will forever be in need of women like her. Many students consider her the guiding light at the end of the DPD tunnel. Her inspiration, dedication, and motivation are the things for which we owe much gratitude and respect. Not only for showing us it can be done, but that it can be done remarkably well.

From all your extended family in Sequoia Hall and the greater CSUN area, thank you, Professor Deirdre Larkin!

There will never be another Dee.

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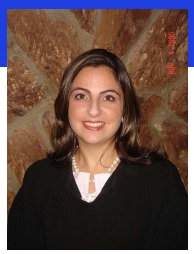

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