Therapies
Strategies for Successful Weight Management Programs: What are the Options?

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INTRODUCTION

Obesity has become an epidemic. The consequences of overweight and obesity cost the health care system $117 billion annually.1 Weight loss, however, can reduce many of the risks brought about by overweight and obesity.2 According to Dr. Walter Willett, improving lifestyle habits can help prevent approximately 80% of coronary heart disease and nearly 90% of type 2 diabetes.3

How Big of a Problem is Obesity Really?

The prevalence of obesity has steadily increased in various demographic groups continued on page 44

Functional Foods
Omega-3 Polyunsaturated Fatty Acids for Heart Health

Christen Cupples Cooper, MS, RD

 Appearing in blogs and headlines as predictably as celebrity gossip and baseball stats are the latest disease-fighting “superfoods.” Heart-disease busters like garlic, red wine, soy, and chocolate have all had their days in the sun. But the spotlight is currently focused on omega-3 polyunsaturated fatty acids (n-3, PUFA), the “good fats” found in fatty fish and fish oils in the form of eicosapentaenoic acid (EPA) and docosahexanoic acid (DHA), as well as alpha-linolenic acid (ALA) from walnuts, flaxseeds, soft margarines, canola oil, and leafy greens.

In addition, omega-6 fatty acids (n-6), the predominant PUFAs in the typical Western diet found in foods from meat to cereals, may help decrease total and LDL cholesterol, as well as raise HDL cholesterol when substituted for carbohydrate.1

Research indicates these unique fatty acids appear to have the ability to lower triglycerides, decrease platelet aggregation, reduce the risk of arrhythmias, and...
W
elcome to Winter 2008 – that
is the season, but it does not feel like that in the south-western desert. I am beginning to think about how I will revamp my vegetable garden and desert landscape so that it will be more productive and water wise this year. What kind of herbs besides basil, lemon grass, and parsley will grow and how can I get tasty tomatoes and colorful pepper from otherwise red dirt that bakes like clay in the summer. That is my challenge for the next month or so as I recover from my first attempt at an Ironman in western Australia. I am happy to report that I did quite well and earned a finisher’s medal by place in my age group as well.

It is always interesting to see how other developed countries such as Australia and New Zealand approach medicine, diet, and nutrition supplementation. One often thinks of those lands down under as just another continent without the vast expertise that we so enjoy here in American. We often forget that they have problems similar to ours – obesity, rampant type 2 diabetes, and cancer. They do have the same problems, but what I found in this visit was that often (with the exception of the indigenous populations) the problems are approached much differently than in America. Even though diabetes and obesity are significant concerns, the schools and government appear to take more active (and accepted) roles and children and adults are encouraged, if not mandated, to be more physically active and make healthier food choices. Nutrition information was abundant down to the room service menu in one of the few hotel rooms we stayed in. Messages were to be wise in what you choose to eat, and fast food restaurants, more formal restaurants, the multitude of bakeries, supermarkets, butcher shops, and even the gas stations had information for the taking.

In New Zealand, our friends and host have a physician son who practices integrative therapies and has done so for years. He uses what many traditional medical practitioners may think of as questionable; however, his success rate among those patients who follow his advice is quite high. Chelation therapy, vitamin C infusions, various herbs, vegetarian diets – verging on vegan – have been used to treat chronic fatigue, high cholesterol, hypertension, and other conditions with good results and few side effects. With minor conditions, the approach is more wait and see (if prudent) using rest, pro and prebiotics, and vitamin C (as in the case of colds) by physicians, rather than opting for antibiotics or other prescriptions that have numerous side effects.

I could continue on, but will save some of my other observations for future columns, and possibly an article. While being away and enjoying two longest days of the year (June 21 in America and December 21 in New Zealand) it is good to be back to the known – including driving on the right side of the road and my shadow being where it belongs! I do want to say in closing that both countries, while they may be distant from us, do have some of the most well respected medical and health researchers to be found, and what they have to offer the world is limitless and highly regarded. As always, your comments and offers to volunteer with the newsletter are welcome. Please contact me at peaknut@cascadearcress.com or 702-346-7968.

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This time of year for many is a time of reflection, on the year passing and the year to come. I always thought that was why there was snow in the winter! I remember my grandmother looking out her bedroom window in the winter toward her garden. When I would ask what she was doing, she always said “I am remembering last year’s garden and planning next year’s.”

This is a good time to reflect on one of NCC’s main events, our involvement in ADA’s Food and Nutrition Conference and Expo (FNCE). This year’s FNCE in Philadelphia was a marvelous opportunity to network with NCC members, attend numerous educational sessions, see new products and services and those that have been available, and enjoy the great city of Philadelphia.

For NCC, the time began with a very productive NCC Executive Committee Meeting. This year’s meeting focused on strengthening the organization to provide members the greatest benefit for their membership. While organizational issues may not seem glamorous, they do provide a structure to accomplish things quicker and more effectively. Look for new changes in the popular NCC Newsletter. New columns and changes that members requested will start in the next issue. The new website continues to be enhanced and additional opportunities are being worked on as you read this issue. One exciting new member benefit will be free CPEU’s in periodic newsletters. In the past members have paid a modest fee, this will change with the next CPEU article.

FNCE continued with an NCC sponsored session by Education Chair, Kathie Swift, MS RD LDN and Dr. Mark Hyman. The room was full, and when the session went a little long, very few people left! The session entitled “Ultra-Metabolism: The Causes of Obesity – an Integrative Approach to Weight Loss” provided an exciting look at the causes of obesity and how an RD and MD can work together in an integrative approach for success. The energy in the room was infectious with over 100 people waiting to ask questions at the end of the presentation! Thank you to Kathie and Mark for one of the best sessions of the conference.

During the Product Marketplace and the Dietetic Practice Group (DPG) showcase, NCC shared information on NCC and the benefits of membership. This year a record 90 ADA members joined NCC. WOW! A special thank you to everyone who joined. This is just one more testament to how RDs want to learn more about complementary nutrition.

Finally on the last day, NCC continued a tradition of an energizing breakfast business meeting. A full breakfast and an education session about food innovations and managing risk factors for CVD made getting up for a 6 AM session worth it. NCC also continued a long standing partnership with the ADA Foundation offering yoga sessions during FNCE.

If you attended FNCE, I hope you have been able to reflect back to your time in Philadelphia. If you were unable to attend, I hope that you have been able to get a picture of the successful events that were held and plan on joining other NCC members at FNCE 2008 in Chicago.

Reflecting is not just something to do on cold, snowy days. Reflect on what you have done and more importantly on what you can do in the future. Taking the lessons learned at FNCE this year will allow the NCC Executive Committee to make NCC even better for members. I know reflecting on the time has reminded me of what needs to be done in the next few months. So as the snow comes down this winter (and as a snow lover I hope it really comes down) reflect, remember the past, and plan for the future.

Have a wonderful New Year!
Gretchen
including: adult men and women of all ages, education, ethnic, and racial groups, as well as at all smoking levels. The prevalence of those with a BMI greater than 40 kg/m2 increased by 500 percent and the prevalence of those with a BMI greater than 50 kg/m2 increased by nearly 1000 percent between 1987 and 2005. Trends in the US from 1976 – 2004 are depicted in the following figures (Figures 1 and 2).

The risk of death from all causes is increased by 10 to 15 percent in obese individuals compared to healthy weight individuals. Recent data have shown that individuals in the US who are obese suffer approximately 112,000 additional deaths per year.

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Obesity increases risk for chronic disease more than smoking, heavy drinking, or poverty according to Sturm and Wells. In fact, obese people suffer from chronic conditions nearly 67 percent more than normal-weight individuals of the same sex, age, and social demographics. In contrast, daily smokers and heavy drinkers suffer from chronic conditions only 25 percent and 12 percent in comparison to normal weight individuals, respectively. In addition to having more negative health consequences than smoking, drinking, or poverty, obesity affects more people. Only 19 percent (of US Americans) smoke daily, 6 percent drink heavily, and 14 percent live in poverty. The effects of obesity are comparable to aging from 30 to 50.

In 1998 the National Institutes of Health issued its first clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults. The recommendation for weight loss included persons with a body mass index (BMI) of 30 or more and for those with a BMI between 25 and 29.9 with two or more risk factors. These guidelines were intended to provide direction to health care professionals for counseling patients with overweight or obesity.

Available Strategies

Adults spend over $50 billion per year on weight-loss efforts, and therefore, have high expectations. For example, women participating in a weight-loss program reported their goal weight as an average 32% reduction in body weight. However, skepticism and confusion over what is the most effective weight loss approach remain.

A recent meta-analysis of weight-loss outcomes reviewed a number of different weight loss strategies including: diet alone (51 studies), exercise alone (6 studies), diet and exercise (17 studies), meal replacements (7 studies), very-low-energy diets (11 studies), weight loss drugs such as orlistat or sibutramine (13 studies), and advice-alone (28 studies) – for a total of 133 studies. Results showed that individuals who participated in the food and meal planning interventions had an average weight loss of 5-8.5 kg or approximately 5%-9% of their starting weight after six months. Weight-loss plateaued at approximately 6 months and stabilized for a total weight loss of approximately 4.5-7.5 kg (4.8-8%) at 12 months. In contrast, advice-only and exercise-alone groups experienced minimal weight loss at any time point (less than 0.25 kg and not more than 1 kg, respectively). The authors concluded that because weight loss appears to plateau at approximately 6 months, the emphasis of a weight-management program should evolve from a focus on weight loss only to weight loss with continued weight-loss maintenance.
Weight Management

Weight Loss With Popular Diets

National weight loss guidelines have been challenged, particularly by supporters of low-carbohydrate diets. Early evaluations of low-carbohydrate, non-energy-restricted diets concluded that they were at least as effective as low-fat, high-carbohydrate diets in inducing weight loss for up to one year. However, most of these trials had a number of methodological flaws including small sample sizes, high rates of attrition, short duration, or limited dietary assessment. Recently, a randomized trial in premenopausal overweight women compared several popular diets, including Atkins, Zone, Ornish, and a traditional weight-loss diet called LEARN. The three popular diets represent a spectrum of carbohydrate intake from very low (Atkins) to low (Zone) to very high (Ornish). The LEARN diet is a low-fat, high carbohydrate diet based on national guidelines and contains a heavy emphasis on behavior modification strategies.

Results showed that women who followed the Atkins diet lost more weight and experienced more favorable metabolic effects at 12 months than women following the Zone, Ornish, or LEARN diets. In addition, weight loss was not statistically different among the Zone, Ornish, and LEARN groups. These findings are in contrast to a previous study which examined these diets (except for the LEARN diet) as well as the Weight Watchers program and found no difference in weight loss results after one year.

Calcium and Conjugated Linoleic Acid for Weight Loss

The effects of calcium for improving weight loss outcomes have been studied since the 1980s; results are, however, inconsistent. Data from NHANES III demonstrated a significant reduction in the odds of being in the highest quartile of adiposity if calcium and dairy product intake were increased. A randomized controlled trial investigating the weight-reducing effects of a milk-based diet compared to a control diet also supported the hypothesis of dairy’s weight-reducing effects. Other studies, however, have contradicted these findings and showed no significant effects. Further studies need to be conducted to better understand the association between calcium and weight management.

The effects of conjugated linoleic acid (CLA) on body composition have been studied extensively since the 1980s. Reductions in fat mass have been observed in animal models while results in humans have been less consistent. A recent meta-analysis of more than 18 randomized clinical trials suggested that CLA (3.2 g/day) produced a fat loss of 0.09 kg/week when compared to placebo. CLA has also been shown to be well-tolerated and effective in maintaining initial body fat mass losses among healthy, overweight subjects when taken over a 24-month period.

Weight Loss And Energy Density

Other recent approaches to weight loss have tried to incorporate methods to enhance long-term dietary adherence such as limiting portions or food choices. However, such restrictive approaches may lead to a lack of weight loss or even weight regain. Conversely, dietary strategies that promote eating satisfying amounts of low-energy-dense foods can improve adherence and increase weight loss.

Researchers at Pennsylvania State University investigated two strategies to reduce dietary energy density among obese women. They examined the weight loss differences between a reduced fat diet (RF) and a reduced fat diet with increased fruit and vegetable intake (RF + FV). Study results showed that both groups consumed less dietary fat demonstrating good adherence to the interventions over the 1-year study period. This resulted in a significant decrease in average body weight of 7.9 kg in the RF + FV group while subjects in the RF group lost 6.4 kg. However, subjects in the RF + FV group had a lower dietary energy density than those following the RF diet alone as a result of consuming a greater weight of food. They also reported experiencing significantly less hunger. Therefore, this dieting strategy showed added benefit by both lowering dietary fat and increasing subjects’ adherence to the method by allowing ad libitum consumption and decreasing subjects’ feelings of deprivation.

Meal Replacement Programs

Intake of key nutrients such as calcium, iron, magnesium, vitamins B1, B2, B6, D, and E as well as fiber may be lacking during prolonged calorie-restricted diets that limit food intake. Calorie-restricted diets that incorporate meal replacement products can lead to weight loss and maintain key nutrient intake such as vitamins D, E, K, pantothenic acid, folate, calcium, and magnesium. In addition, they help maintain low-calorie diets over the long-term due to ease of use and focus on portion control.

Behavior Modification and Social Networks

Social networks, social support, and behavior modification are other factors that influence weight loss. For example, researchers utilizing data from the Framingham Heart Study (1971-2003), a group of more than 12,000 individuals who form a large interconnected network, examined the effects of social networks on obesity using BMI as a reference. Clusters of obese persons in the network existed at all time points and these clusters extended to three degrees of separation from the person under study.

A person’s chance of becoming obese increased by
57% if he or she had a friend who became obese in a given time interval. Persons of the same sex had relatively greater influence on each other than those of the opposite sex. Among pairs of adult siblings, if one sibling became obese, the chance that the other would become obese increased by 40%. Similar effects were found among spouses (37% increase for other spouse). Interestingly, these effects were not noted among neighbors in the immediate geographic location.

Strategies to enhance social support have been used frequently as key components of lifestyle-focused weight management interventions. Common sources of social support include family members, friends, colleagues, and communities (e.g., church). This social support has been shown not only to improve the health of the subject but also of the support giver because providing support makes them feel good about themselves.

The National Weight Control Registry, which was first launched in 1994, has provided some key information to help sort out the pieces of the weight management puzzle. The registry contains 6000 overweight and obese individuals who have lost an average of 33 kg and maintained a 13.6 kg loss for nearly 6 years. Some of the behavioral and lifestyle strategies that have shown to be successful for weight loss maintenance include a low-calorie diet and high energy expenditures. Another key behavior that approximately 75% of registry participants exhibit is that they weigh themselves at least once a week. Frequent weighing helps to stop small weight gains from becoming large ones. This is an important point because few in the registry who regain weight are able to lose it again. Only 11% in one study from the registry returned to their baseline weight during a 1-year follow-up period.

Take Home Message

It is important to recommend a program that participants are able to maintain long-term. A successful weight management program should include many essential elements which must work together (Figure 3). The first element is the participants themselves. Self-motivation is a fundamental concept for building this element. The second element is to follow an appropriate weight loss regimen, where diet and exercise are critical tools for building this element. Many different diets as described previously can be incorporated into a comprehensive weight management program.

Evaluating participants’ health conditions and lifestyle habits prior to introducing any dietary, exercise, or behavioral modifications is important. Rapid weight loss, and sudden changes in health conditions during the weight loss, can pose serious health risks. To reduce this risk, health care professionals such as physicians and dietitians should routinely monitor participants’ progress. In addition, health care professionals need to provide regular consultations and help participants develop a personalized weight management program to maintain optimal health, motivation, and well-being. Therefore, health care professionals play an important role and are one of the essential elements in a weight management program.

It is also important for us to recognize that obesity is a social issue and everyone should be involved in the weight management program. Families and friends usually serve as the first line of support. However, support groups such as community resources (e.g., religious organizations), health care providers, and colleagues should also be included. To optimize efforts in combating the obesity epidemic, health care professionals should be more proactive in connecting participants in weight management programs with their social networks.

Finally, there is no magic bullet to resolve the obesity epidemic. We must be part of the process and continue to contribute our efforts and support to help individuals find personal solutions to achieve their weight management goals.

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Weight Management

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References


**Corrected Entry**

Please note that the answers to the CPE questions for the Sports Supplement article in the Fall 2007 issue of the newsletter were listed incorrectly. They should read as follows:


We are sorry for any inconvenience this may have caused.

**The Omega-6 Family**

<table>
<thead>
<tr>
<th>Omega-6 PUFA</th>
<th>Food Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derived from...</td>
<td></td>
</tr>
<tr>
<td>LA (18:2n-6)*</td>
<td>Cereals, eggs, poultry, most vegetable oils (especially sunflower, saffola, and corn), whole-grain breads, baked goods, and margarine</td>
</tr>
<tr>
<td>Can be converted to...</td>
<td></td>
</tr>
<tr>
<td>GLA (18:3n-6)</td>
<td>*Human milk, evening primrose oil, borage oil, black curant oil, hemp seed oil</td>
</tr>
<tr>
<td>γ-linolenic acid</td>
<td>*Human milk, cow’s milk, meat, egg yolks, shrimp, some seaweed</td>
</tr>
<tr>
<td>AA (20:4n-6)+</td>
<td>*Essential fatty acid</td>
</tr>
<tr>
<td>Arachidonic acid</td>
<td>+Conversion to AA from dihomo-GLA (DGLA, 20:3n-6)</td>
</tr>
</tbody>
</table>

*Essential fatty acid
+Conversion to AA from dihomo-GLA (DGLA, 20:3n-6)

**PUFA Structure and Function**

PUFAs contain multiple double bonds in their aliphatic side chains, distinguishing them from their saturated, monounsaturated, and trans fat cousins. These double bonds, or points of unsaturation, make PUFAs highly fluid. They give this quality to the cell membranes within which they eventually become incorporated, enhancing receptor number and function.

PUFAs are also substrates for eicosanoids, which are enzymatically-oxidized, biologically active fatty acid products. Eicosanoids can have either pro- or anti-inflammatory effects responsible for actions such as vascular permeability changes, vasoconstriction, mitosis, and inflammation. In fact the n-3 vs. n-6 battleground has become a research frontier as scientists explore whether the n-6 PUFAs, arachidonic acid (AA), may trigger the inflammation that causes CVD, and if others, such as the n-3 PUFAs alpha-linolenic acid (ALA), may help fight it.

On a biochemical level, researchers believe that the confrontation between n-3s and n-6s begins when ALA and LA compete for conversion enzymes, thereby dictating which eicosanoids are formed. The resulting n-3 or n-6 PUFAs formed in this process can go on to compete for incorporation (or esterification) into the plasma lipid fractions, such as in phospholipids and triglycerides.

ALA, EPA, and DHA appear to form eicosanoids that have anti-inflammatory, anti-thrombotic, anti-arrhythmic, and vasodilator qualities, whereas AA has been linked to the formation of PGE2 and leukotriene B4—proinflammatory eicosanoids.

**Functional Foods** continued from page 41

improve endothelial tissue function. They thereby seem to reduce the overall risk of cardiovascular and all-cause morbidity and mortality, especially the risk of sudden death from cardiac events. The effectiveness of n-3 and n-6 fatty acids are based on emerging science and further research in this area is needed, therefore, investigations continue.
The Omega-3 Family

<table>
<thead>
<tr>
<th>N-3 PUFA and Food Sources</th>
<th>ADA Evidence-Analysis Guidelines+</th>
<th>AHA Recommendation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALA (18:3n-3) Alpha-linolenic acid</td>
<td>• Plant-based foods of 1.5 g ALA (1 T canola or walnut oil, ½ T ground flax seed, &lt;1 tsp. flaxseed oil)</td>
<td>• Choose foods that provide ALA, such as soybeans, canola, walnut and flaxseed, and their oils</td>
</tr>
<tr>
<td>EPA (20:5) Eicosapentaenoic acid</td>
<td>• Two 4-ounce servings per week of fatty fish (mackerel, salmon, herring, trout, sardines or tuna)</td>
<td>Healthy individuals • Eat a variety of (preferably fatty) fish at least two times per week</td>
</tr>
<tr>
<td>DHA (22:6) Docosahexaenoic acid</td>
<td>• Both found in marine fish</td>
<td>Patients with CHD • Consume approximately 1 g of EPA/DHA per day, preferably from fatty fish. • Consult a physician before supplementing</td>
</tr>
<tr>
<td>OA Oleic acid</td>
<td>• Olive oil</td>
<td>Patients with high triglycerides • 2 to 4 g of EPA/DHA per day provided as capsules under a physician's care</td>
</tr>
<tr>
<td>PA Palmitoleic acid</td>
<td>• Macadamia oil</td>
<td></td>
</tr>
</tbody>
</table>


PUFAs and Cardiovascular Disease

There have been a large number of observational, prospective, and randomized-controlled trials on the potential heart health effects of n-3 PUFAs. One recent meta-analysis of randomized, controlled studies identified a lower incidence of myocardial infarction, cardiac arrhythmias, and hypertension with increased n-3 intake. The well-known Nurses Health Study demonstrated that women who consumed fish and had a higher overall n-3 intake had a reduced incidence of coronary heart disease (CHD). Recent studies suggest that intakes of the ALA n-3 at levels of 0.53 to 2.8 g per day can lower the risk of cardiovascular (CVD) events, fatal ischemic heart disease, and mortality from all causes. Many countries, such as the United Kingdom, Canada, and Japan, as well as the World Health Organization have made ALA intake recommendations. Results of the Health Professionals Follow-Up Study also support the value of ALA in the diet, finding that a 40% decrease in myocardial infarction risk may be achieved by a 1% increase in energy from ALA; this, after adjusting total fat intake.

Another finding illuminates an important role for ALA: it may help to lower CHD when fatty-fish intake is limited. Researchers highlight two additional findings for practical application. First, it is more important to help patients add n-3 sources to the diet than to focus on n-3/n-6 ratio. And second, plant sources of ALA may be a preventive option for individuals who do not consume fatty fish.

Omega-6 PUFAs are found in a variety of common foods such as eggs, poultry, baked goods, whole-grain breads, cereals, soft margarine, and vegetable oils such as sunflower and corn. Research indicates that n-6 PUFA can be helpful in reducing CVD risk through a positive effect on serum lipid levels.

In another investigation, researchers studied the blood lipid changes of subjects consuming one of two diet types: high n-6 or high n-3. Both diets were 30% of total calories from fat, low in saturated fat (8% of total calories) with 1.7% more PUFA than saturated, one from n-6, the other from n-3. They were measured against a diet with 30% of total calories from fat, but 16% of it saturated fat and 4% of it PUFA. The high n-3 group had lower plasma triglycerides, apoprotein A-II, and fibrinogen concentrations, as well as higher HDL-cholesterol levels than the n-6 group. The n-6 group results showed higher fibrinogen levels, and the n-3 group experienced an increase in fasting factor VII coagulant activity – both considered predictors of heart disease. Taken together, the battery of PUFA studies supports the inclusion of both n-3 and n-6 in the diet, although the optimal n-3 to n-6 ratio has not been determined. Mozaffarian et al. investigated the interplay between the two PUFAs and CHD risk in the Health Professionals Follow-up Study. In an evaluation of 45,722 men, researchers reviewed food intake using a food-frequency questionnaire given at baseline and again every four years between 1986 and 2000. All
cardiac events were recorded in the 14-year study period. The results showed that those consuming approximately 250 mg/day of n-3 had a 40-50% lower risk of sudden death, independent of n-6 intake and CHD-associated risk factors. There was no evidence that n-6 interferes with the benefits of n-3; there was also no evidence of an association between n-6 intake and CHD risk.6

Working PUFAS into the Diet

Continued research on n-3 and n-6 PUFAs can be expected as food manufacturers seek out appropriate substitutions for saturated and trans fat in new and traditional food products. Studies to date have focused on the effects of supplementing the diet with additional fish intake or fish oil supplements or by substituting PUFA for other foods in the diet. Today, scientists are searching in more depth to uncover and determine ratios of n-3 to n-6 in the diet, as well as the mechanisms by which PUFAs exert their potential protective effects.1

Because there are numerous food sources of ALA, intake of this PUFA can be raised by relatively small changes and substitutions in the diet. A recent study in the Journal of the American Dietetic Association used dietary modeling to show that by substituting fats commonly used in the U.S. with canola oil, Americans would make considerable strides in complying with the dietary recommendations for fatty acids.10 Subjects in a study by Metcalf et al. voluntarily chose a number of products (some enriched) that were rich in n-3s from an assortment of foods such as fish, flaxseed, fortified luncheon meats, sausages, and margarine. Even those who chose no additional fish raised their dietary intake of n-3 by 200-400 mg/day, and all food choices were made without prompting from researchers.11 Yet to be studied is how the increased publicity concerning the potential benefit of n-3s and the availability of many new n-3 fortified foods may serve to increase Americans’ intakes of n-3 in the form of ALA.

Fat intake should remain consistent with recommended limits on fat consumption in the 2005 Dietary Guidelines (20-35% of total calories) and should not result in increased caloric intake. For the seafood aficionados, encourage them to find room in their weekly plan for tuna, mackerel, salmon, herring, trout, or sardines. Provide resources for healthy recipes that incorporate these fatty fish and encourage them to try something new when they’re in a rut. For those opting not to eat fish, here are suggestions for increasing PUFA in the diet:

1. For patients looking for plant based sources of their essential fatty acids (EFA), direct them to oils and nuts. Here are some ideas for including more EFA the plant based way:
   • Top salads with canola based dressings, sprinkle with flaxseed or dress with walnuts.
   • Everything goes with nuts. Walnuts can be added to a hot bowl of oatmeal, cold cereal, or even a yogurt parfait. Remind patients to choose the unadulterated variety—no salt or oil.
   • Replace butter and partially hydrogenated margarines with soft margarines and vegetable oil blends that offer ALA and LA. The key is to advise patients to compare labels—look for the lowest saturated fat blend they can find, with 0 grams of trans fat per serving.
   • Bake with healthy vegetable oils and spreads/margarines.
   • Stir fry or sauté with these oils, such as canola or soft margarines.

2. Olive oil is not the only oil! Encourage patients to include a variety of healthy vegetable oils for the MUFAs and PUFA.

3. Check for new and improved products (functional foods). N-3 enriched products are popping up on the grocer’s shelves almost daily. Not only are there oils and spreads offering EFA, but mayonnaise, salad dressings, eggs, pastas, and baked goods are arriving in stores.12

On-line Resources


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References:


10. Johnson GH, Keast, DR, Kris-Etherton PM. Dietary modeling shows that the substitution of canola oil for fats commonly used in the United States would increase compliance with dietary recommendations for fatty acids. JADA. 2007;107: 1726-1734.


“I really don’t eat that much, it must be my metabolism”…
“I exercise every day and I still can’t lose a pound”…
“I started gaining weight after I moved into a moldy apartment complex”…
“It has to be my genes – I look at food and gain weight”…
“Since being on an antidepressant, I’ve been gaining weight like there’s no tomorrow”…

Sound familiar?

The frustrations of our overweight patients are valuable clues for us as practitioners. One of the most essential skills we can bring to a patient encounter is our sense of inquiry and wonder as we dig deep to gain a greater understanding of the complexities of the science of weight loss.

At the FNCE NCC Priority session this year, I teamed up with my colleague, Dr. Mark Hyman, to share the work we have been doing for over 15 years in helping our patients with chronic complex disorders such as obesity.

Talk about energy expenditure? You could feel the resting metabolic rate (RMR) rising in a jam-packed room as Dr. Hyman enthusiastically presented food for thought on the “Seven Metabolic Myths” of Weight Loss and the “Keys to the New Science of Weight Loss” as outlined in UltraMetabolism.

The Seven Metabolic Myths

Myth #1: Eat Less + Exercise More = Weight Loss.
Restricting calories turns on ancient mechanisms that prevent starvation. These mechanisms slow metabolism to conserve energy and trigger a cascade of molecules in the blood so that you receive hunger signals that are too strong to ignore—all leading to weight gain.

Myth #2: You can control weight by counting calories.
All calories are not created equal. Food that enters the blood stream quickly promotes weight gain; food that enters slowly promotes weight loss. For example, sugar from soda enters the blood very rapidly; the calories that are not being used are stored as fat. The same amount of sugar from kidney beans enters the blood slowly. Because the body has a greater chance to make use of the calories over time, more is burned and less stored.

Myth #3: Eating Fat Makes You Fat.
We have been brainwashed to believe that if we eat fat, we will get fat. There’s one problem—science does not support this myth. The reason? Low fat diets are often rich in high glycemic carbohydrates, which raise insulin levels and promote weight gain.

Myth #4: Eating No-Carb or Low-Carb Will Make You Thin.
Carbohydrates are actually the single most important food in your diet for long-term health. As with calories and fats, there are different types of carbs that interact with your genes leading to remarkably different effects. Human beings have not evolved to metabolize the highly processed and refined carbohydrates we eat that contribute to the major diseases of diabetes, heart disease, dementia, and cancer.

Myth #5: Skipping Meals Helps You Lose Weight.
One of the reasons that Americans are getting to be as big as Sumo wrestlers is because we actually eat like them. The Sumo diet causes ordinary people to gain extraordinary amounts of weight. They skip breakfast, train for five hours (working up an appetite), eat a huge meal, nap for several hours, eat dinner and go to sleep. Does skipping breakfast and eating a large meal just before sleep sound familiar? It should. It’s the American way.

Myth #6: The French Paradox Meets the American Paradox.
The French have a reputation as a culture that knows about food, what to do with it, and how to eat healthy. The French eat more fat, drink more wine, and yet suffer less heart disease and are less obese than Americans, right? That’s only part of the story. The truth is that the French eat real (fresh, full of nutrients, and minimally processed) food, they eat less food, they eat food more slowly than Americans do, and they walk more than we do.
UltraMetabolism

Myth #7: FOOD POLITICS: Government and Industry are the Guardians of Our Health.

An obese America is big business for the food and pharmaceutical industries. The food industry spends more than $33 billion annually on marketing; 70% of those dollars go to pushing fast food, convenience foods, candy, snacks, soft drinks, alcoholic beverages, and dessert. Only 2.2% is spent on advertising for fruit, vegetables, grains, or beans. The main classes of drugs available for treating high cholesterol are among the biggest selling in history. Our government can’t find money to fund public health campaigns to promote the scientific principles of good nutrition, but can increase agricultural subsidies from $18 billion in 1996 to $28 billion in 2000, to supply a glut of soybeans and corn that is transformed in the laboratory into toxic food additives, super sugars and super fats known as high-fructose corn syrup and hydrogenated soybean oil.

Seven Keys to the New Science of Weight Loss

There are seven keys to weight loss and all of them work together to open the door to vitality, health, and successful long-term weight loss. They are the keys to reversing disease, being set free of chronic symptoms, and creating optimal health.

Key #1: Control Your Appetite.

The first key is to understand how the brain, gut, and fat cells communicate with each other through hormones and brain messenger chemicals. When they are working properly, they are an elegant machine pinpointing when there is a need for energy and sending the proper signal to consume calories to obtain that energy. When they go haywire—and there are many ways for them to go haywire in our current eating climate—they contribute to overeating and weight gain.

Key #2: Subdue Stress.

The second key is to understand how stress contributes to excess body fat accumulation and how to overcome its effects. Under any physical or psychological stress, the body is designed to protect itself. It stores calories and conserves weight (as Dr Hyman pointed out with the rhino illustration in Africa, we might need that energy reserve to run from a predator). It pumps hormones into our systems that increase blood fats, sugar, and insulin to prepare us for fight or flight. Without eating more or exercising less, stress alone will cause weight gain.

Key #3: Cool the Fire of Inflammation.

The third key is controlling inflammation, a hidden force behind weight gain and disease. Being overweight promotes inflammation and inflammation promotes obesity in a terrible, vicious cycle. More than half of Americans are inflamed, and most of them don’t know it.

Key #4: Prevent Rust or Oxidative Stress.

The fourth key is preventing cellular “rust” that interferes with metabolism, contributes to weight gain and aging, and causes inflammation. Free radicals are oxygen molecules that run amuk in the body stealing electrons from other molecules. The molecule that loses an electron is damaged, or oxidized. Oxidized tissues and cells don’t function normally. The process results in damaged DNA, damaged cell membranes, stiff arteries that look like rusted pipes, and wrinkles.

Key #5: Turn Calories into Energy.

The fifth key is learning how to turbocharge our metabolic engines to more efficiently turn calories into energy. Our ability to burn calories is dependent on the health, number, and efficiency of mitochondria, the little powerhouses that produce energy in every cell.

Key #6: Fortify Your Thyroid.

The sixth key is making sure the thyroid, the master metabolism hormone, is working optimally. Many of those individuals with suboptimal thyroid function may not be treated optimally, making matters worse.

Key #7: Love Your Liver.

The seventh key is improving liver detoxification so it will properly metabolize sugars and fats. Toxins from within our bodies and toxins from our environment both contribute to obesity. Getting rid of toxins and boosting our natural detoxification system is an essential component of long-term weight loss and a healthy metabolism.

UltraMetabolism in Practice

Food and nutrition professionals have a critical role in educating physicians about nutritional medicine, influencing the food industry to remove toxic food ingredients, and counseling patients to transition to a WHOLE FOOD diet that provides the right biochemical information for effective weight management. We must be become skilled in assessing overweight patients using a “functional medicine lens” that explores root causes of illness such as inflammation, hormone balance, digestive function, food allergies and continued on bottom of page 54
Members in the News

Esther Blum, MS, RD, CDN, CNS, an NCC member in New York City, has been featured on numerous national news and talk show programs promoting her new book, Eat, Drink, and Be Gorgeous: A nutritionist’s guide to living well while living it up! With more than fourteen years of nutrition counseling and a position with the NV Perricone, MD flagship store, she has drawn on her expertise to provide nutrition information in a fun and practical nature. She incorporates information on healthy food and beverage choices as well as supplementation for out-of-control hormones for glamour girls and want-to-be glamour girls. For more information on Esther’s approach to healthy eating for a glamorous life, see the Resources Review on page 57.

Dave Grotto, RD, LDN is president and founder of Nutrition Housecall, LLC, which is a nutrition consulting firm that services the healthcare industry and offers personalized at-home dietary services. A 2005 Excellence in Practice award recipient from the American Dietetic Association’s Nutrition and Complementary Care Practice Group, Dave, was given the honor for work in the clinical aspects of complementary nutrition. Dave’s most recent work has culminated in a health guide, recipe book, food fact finder, and diet plan wrapped into one book entitled: 101 Foods That Could Save Your Life. For more information on Dave’s book, see the Resources Review on page 57 or www.nutritionhousecall.com.

Vijaya Juturu, PhD, FACN will receive the Dr. Tinsley Harrison Award from the American Journal of Medical Sciences (AJMS) on Feb 22, 2008 in New Orleans, LA. This award is given by the editors of the journal for an article they consider the best research paper award published in AJMS. This award is made in memory of Dr. Tinsley Harrison, one of the founders of the Southern Society for Clinical Investigation. Dr. Harrison was a cardiologist of great renown and known for his book: Principles of Internal Medicine. The paper, “Chromium picolinate and biotin combination reduces atherogenic index of plasma in patients with type 2 diabetes mellitus: a placebo-controlled, double-blinded, randomized clinical trial,” was co-authored with J. Geohas, A. Daly, M. Finch, and J.R. Komorowski, and published in the Am J Medical Sciences 2007. Mar;333:145-53.

John Westerdahl, PhD, MPH, RD has recently been appointed Director of the Bragg Health Foundation, a nonprofit health foundation, and also as Director of Health Science for Bragg Live Food Products, Inc., makers of quality natural food products and the publisher of health science books. Dr. Westerdahl works with Patricia Bragg, ND, PhD, a pioneer in the natural foods industry, and the daughter of Paul C. Bragg, ND, PhD who was the originator of Health Food stores. For more information see, www.bragghealthfoundation.org and www.bragg.com.

Let your fellow NCC members know about your accomplishments. Email Sarah Harding Laidlaw at: peaknut@cascadeaccess.com with information about YOU and YOUR business, innovative approaches to CAM, and achievements.

UltraMetabolism continued from page 53

intolerances, nutritional deficiencies (ex. vitamin D, B-vitamins, etc.) and impaired detoxification.

Our hope was that this session inspired and motivated more food and nutrition professionals to learn about functional medicine and begin using these principles in our practices so that more patients will be empowered to reclaim their health.

To view our presentation: www.ultrawellness.com/ADA or for more information: www.ultrametabolism.com

Mark Hyman, MD is a medical consultant, New York Times-bestselling author, lecturer, practicing physician, and a leader in the emerging field of functional medicine. He is the founder and Medical Director of the UltraWellness Center in Lenox, MA.

Kathie Swift, MS, RD, LDN, NCC’s Education Chair, is currently the Nutrition Director for Hyman Integrative Therapies in Lenox, MA., and nutritionist for both the Center for Mind Body Medicine in Washington DC and Kripalu Center for Yoga and Health in Lenox, MA.
Excellence in Practice Award

A. PURPOSE: To recognize an individual who has demonstrated extraordinary skill in practice and commitment in the promotion of dietetics professionals involved in nutrition and complementary care.

B. ELIGIBILITY: All active members in good standing with the American Dietetic Association and NCC-DPG. Exempt members are the following: previous winners of the Excellence in Practice Award and any current NCC Executive Committee member.

C. SELECTION PROCESS & CRITERIA:
1. Written nominations for the Excellence in Practice Award can be submitted by any member of NCC, including one’s self, with exception of exempt members (see above).
2. Nominees will be contacted by the Awards Committee and asked to complete the Personal Information Form.
3. Nominees will submit the Personal Information Form and curriculum vitae to support nomination.
4. Nominees will be considered for this award based on:
   a. Position(s) related to nutrition and complementary care; demonstrated excellence in the field of nutrition and complementary care as evidenced by work that is innovative, creative and recognized as exemplary by professional peers.
   b. Participation in nutrition and complementary care related activities such as volunteer work, committees or involvement with NCC-DPG.
   c. Major presentations, publications, and research in the area of nutrition and complementary care.

ENTRY DEADLINE: All nominations must be received by March 14th, 2008. Final application and biographical information or curriculum vitae must be received by March 31st. Selection will be made by April 15th, 2008. The award recipients will be notified by mail and announced in the summer newsletter.

To nominate yourself or another NCC member for either award, please submit your nominations to Christine Brown, MS, RD via email Christine@ccsb.org or phone (805) 898-2114. For additional information about the Professional Travel Award providing assistance to members wanting to attend a non-ADA sponsored meeting, please see the NCC web site: www.complementarynutrition.org.

Distinguished Service Award

A. PURPOSE: To recognize an individual who has demonstrated leadership and service as a member of the Nutrition and Complementary Care Dietetic Practice Group (NCC-DPG); is a leader in the profession, and has worked toward the promotion of dietetics professionals involved in nutrition and complementary care.

B. ELIGIBILITY: All active members in the American Dietetic Association and NCC in good standing. Exempt members are the following: previous winners of the Excellence in Practice Award and any current NCC Executive Committee member.

C. SELECTION PROCESS & CRITERIA:
1. Written nominations for the Distinguished Service Award can be submitted by any member of NCC, including one’s self, with exception of exempt members (see above).
2. Nominees will be contacted by the Awards Committee and asked to complete the Personal Information Form.
3. Nominees will submit the Personal Information Form and curriculum vitae to support nomination.
4. Nominees will be considered for this award based on:
   a. Active participation in the functioning projects of NCC
   b. Promotion of NCC outside the practice group
   c. Involvement in other dietetic associations which highlight/promote the registered dietitian in complementary care
   d. Demonstration of a leadership role in NCC
   e. Contributions to research in the area of nutrition and complementary care, major presentations and/or publications

Nominations Accepted January 1st – March 14th

It’s time again to select recipients for the Distinguished Service Award, Excellence in Practice Award, and Professional Travel Award.

CALL FOR AWARDS NOMINATIONS

www.complementarynutrition.org
Over 120 people attended the FNCE NCC breakfast, sponsored by Promise Institute for Heart Health, on Tuesday, October 2. Along with good food, conversation, and networking, members had the opportunity to hear from Dr. Jane Upritchard, a nutritionist with the nutrition and health group for Unilever North America and a member of Unilever's Global Nutrition Team. Her primary responsibility is in the area of nutrition communications and nutrition sciences for the spreads and dressings brands for Unilever North America.

During her presentation, Dr. Upritchard described the latest research on the dietary management of blood pressure and importance of potassium in the diet. In addition, she discussed food innovations emerging for cholesterol and blood pressure management. We were provided with the opportunity to taste the new Promise Activ Super Shots™ product that contains two grams of plant sterols in a three ounce shot. A similar product will emerge next year and will address Americans’ issue of lack of potassium in the diet.

Prior to the ending of the breakfast, each of the following NCC members were winners of a Natural Medicines Database book (a $92 value).

Current Member Winners

Leslie Moskowitz, MS, RD, CDE
Nancy Rogers, RD, MS
Irma Burda, MS, RD, LD
Cindy Burke, MS, RD, FACN, LN
Maryann Gallucci
Marlisa Brown, MS, RD, CDE, CDN
Susan DelleDonne, MS, RD

New Member Winners

Jenna Rosmann, MPH, DO
Nichole Dandrea
Mindy Haar, MS, RD, CDN
Stephanie Lai

THANK YOU TO OUR SPONSORS
Without your generous contributions, many of the opportunities and member benefits would not be possible.

Platinum

Promise Institute for Heart Health

Bronze
Pharmavite

Nature Made
Most people hear more about what not to or what they can’t eat, rather than what foods they can eat. Not only that, the consensus among those who are watching what they eat is that what’s good for them does not taste good. Dave Grotto has set out to prove that these facts are not the case and he appears to have succeeded in his book *101 Foods That Could Save Your Life.*

The book is written in an easy to read, consumer friendly format, but don’t let that dissuade you from purchasing it for your library. *101 Foods That Could Save Your Life* is a library of information about foods that are purported to and do have qualities that are important in everyone’s diet. It covers foods from fruits to nuts and everything in-between starting with acaci (ah-sigh-ee) berries and ending with yogurt. Each food includes a compendium of references to support the health benefits described, as well as ways to incorporate the food into the diet.

The book is a reference book for the food and nutrition professional who wants to know more about a particular food and its benefits, and a reference book for the consumer who desires to make changes in their diet by adding foods with more health benefits to their diet. *101 Foods That Could Save Your Life* also gives detail about each entry, including:

- A fast fun fact about the food’s benefits or the food lore about its use.
- Where it is grown and what it has been and is used for.
- Why it should be included in the diet, including the vitamins, minerals, and other nutrition benefits it provides.
- What it might be used for – home remedies, weight control, heart health as examples – with up-to-date research available to support, including the food in the diet.
- Tips on using the food, including the season when it may be most abundant, how to store it, and preparation and serving suggestions.
- A sample 2000-calorie meal plan utilizing the foods and recipes in the book. Portion sizes can easily be adjusted if fewer or more calories are desired or additional nutrient modification is needed.
- A handy quick reference on phytochemicals and nutrients found in the foods listed in the book provide for a quick and easy way to look up what foods may contain a particular nutrient.

*101 Foods That Could Save Your Life* is a reference book that is well worth adding to your professional or personal library. It is reasonably priced, easy to read, and provides the information needed if one wants to learn more about one of these powerhouse foods.

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*Eat, Drink, and Be Gorgeous: A Nutritionist’s Guide To Living Well While Living It Up!*

E. Blum

2007; Chronicle Books.

192 pp., Hardcover; $22.95

ISBN: 0-8118-5540-6

*Eat, Drink, and Be Gorgeous* by NCC member Esther Blum is written with a unique, tongue-in-cheek approach on how to live it up, eat well, and make healthy changes all at the same time – in other words, how women can have their cake and eat it too. Esther takes her own advice for putting fun in healthy eating and nutrition. She describes the secrets that she has discovered and recommended for beautiful skin, a fantastic figure, and the peace of mind that the choices won’t put a person over the top or under the table!

The book may not be what a food and nutrition professional thinks of as a typical reference book, but it might get the attention of women clients who may be more concerned about their looks and a good time rather than health. *Eat, Drink, and Be Gorgeous* is filled with sound nutrition information for everyday women who want to look and feel their best while enjoying life. It offers ways to repair the damage done when good intentions are lost to temptation.

Esther combines her passions – eating and nutrition – with quips and quotes on food and dining from such notables as Virginia Wolf and Eleanor Roosevelt, and plays on words such as “Smooth Moves” for discussing the age old problem of constipation. She begins her book promising to
American Society of Nutrition Sciences (ASNS) Experimental Biology Meeting

Vijaya Juturu, PhD., FACN.
Director, Scientific Affairs
Nutrition 21 Inc, 4 Manhattanville Road, Purchase, NY 10577

NCC provided support for my attendance at the American Society of Nutrition Sciences (ASNS) Experimental Biology meeting in Washington, DC, April 28 – May 2, 2007. The Experimental Biology group includes 21 constitutional societies including the American Dietetic Association (ADA).

The ASNS meeting was the main stage where globally recognized nutrition researchers and clinicians shared their knowledge and research activities on clinical and applied nutrition. The American Society for Nutrition with more than 3,500 members is one of the premier research societies dedicated to nutrition research and practice. This was an exciting opportunity for me to interact personally with some of the world’s important leaders in nutritional sciences.

The sessions covered a variety of aspects of nutrition science including those of interest to NCC members. One of the most interesting topics was the presentation Botanical Supplements for Human Health co-chaired by Dr. Connie Weaver, Director of Purdue University and the University of Alabama Botanicals Research Center for Age Related Diseases, and Dr. Diane Birt, Professor Food Science and Human Nutrition, Iowa State University.

Dr. Swanson from Office of Dietary Supplements (ODS), National Institutes of Health (NIH), led the presentation on the ODS program’s botanical supplements for human health and disease. Dr. Ilya Raskins, Professor, Rutgers University, followed with a presentation on the standardization of botanicals, which included information on the definition, identification, and verification of herbal supplements. Dr. William Cefalu, Professor, Chief Nutrition/Chronic Disease, Pennington Biomedical Research Center (PBRC) continued with a report on herbal supplements’ effects on glucose metabolism. He presented research of in vitro models that assessed glucose uptake and glycogen synthesis and the application of these assays to the metabolic syndrome. While the data is promising, in vivo and human studies are needed to confirm these findings and should include addressing the safety of this herbal supplementation.
Dr. Diane Birt emphasized the importance of echinacea and hypericum in infection, and Dr. Floyd Chilton, Wake Forest University, brought attention to the importance of botanical oils in inflammation and atherosclerosis. Barrie Cassileth, PhD, Chief of Integrative Medicine at Sloan Kettering Cancer Center, presented the role of botanical immunomodulators in cancer. She explained that an immunomodulator is any substance that helps to regulate the immune system and several botanicals, including echinacea (Echinacea purpurea), astragalus (Astragalus membranaceus), turmeric (Curcuma longa) and maitake mushrooms may modulate the immune system and potentially exert tumor-inhibitory effects. Dr. Norman Farnsworth, Director, UIC/NIH Center for Dietary Supplements Research, provided a perspective on the use of botanicals in women’s health. He reported that black cohosh and red clover can reduce hot flashes in menopausal women. Dr. Van Breemen, Professor, Department of Medicinal Chemistry and Pharmacognosy, Co-Director of the UIC/NIH Center for Dietary Supplements Research, concluded the session on describing the safety of botanicals. The research presented in this session is their preliminary work as a part of their NIH-ODS grant for research on botanical supplements for human health and disease. The session emphasized the need for more studies before the importance of use of botanicals for health and disease condition can be fully understood and applied.

Another interesting topic included the effect of dietary supplementation of white button mushroom on immune function in a mice model. Dr. Wu, Assistant Professor, Friedman School of Nutrition Science and Policy Scientist, Jean Mayer USDA Human Nutrition Research Center on Aging and Nutritional Immunology Laboratory, USDA, Human Nutrition Research Center (HNRC), Tufts University, has shown these mushrooms to possess anti-tumor and immune function through their anti-viral and antibacterial properties. In this model, the research showed a significant correlation between the supplementation of mushroom powder for ten weeks with natural killer cell activity and interferon gamma production. These results suggest that the mushroom supplement improves immune function and may promote immunity against viral infections and tumors.

Dr. Ahmed, PhD, lead researcher on a study at University of Michigan Medical School, presented his evaluation on anti-inflammatory effects of epigallocatechin-3-gallate (EGCG). He concluded that epigallocatechin-3-gallate (EGCG) inhibits IL-1ß-induced and IL-6 production and cyclooxygenase-2 (COX-2) expression in rheumatoid arthritis synovial fibroblasts in vitro. He reported that EGCG may be of potential therapeutic value in regulating the joint destruction in rheumatoid arthritis (RA).

Attending the ASNS meeting is a great way to get an update on all facets of nutritional sciences. The ASNS is one of the best scientific sessions in which one can truly learn about the nutritional aspects of various chronic conditions, analytical methods, clinical assessments, new concepts in nutrition and biochemical aspects of nutrition, and how to write grant applications. Thank you to NCC-DPG of the American Dietetic Association for giving me the opportunity to attend the annual meeting of Experimental Biology.

Contact Vijaya at: 914-701-4508 (voice); 914-696-0860 (fax); or vjuturu@nutrition21.com

Announcing: NCC’s First Networking Relationship

The ADA recently approved NCC-DPG’s request to form a network relationship with the Institute for Functional Medicine (IFM). A “network” is defined by the ADA as a communication opportunity designed for the purpose of sharing information between the two groups. IFM is comprised of 5,000 health care professionals representing a full complement of disciplines and specialties, including MDs, DOs, RDs, DCs, NDs, dentists, nutritionists, and nurse practitioners. The mission of IFM is to serve the highest expression of individual health through widespread adoption of functional medicine as the standard of care. More information on IFM can be found on their Web site at www.functionalmedicine.org.

Examples of proposed network activities with IFM include collaboration on webinars, conferences and publications on functional medicine. IFM holds regular webinars and conferences that would be of benefit to NCC members. Watch your email in-boxes for more information as this network relationship develops.

For more information, contact Kathie Swift, MS, RD, NCC Educational Chair at swiftnutrition@aol.com.