Message from the Chair

2007 has been flying by so quickly, and it is autumn already—where have the months gone? This has been a very busy year for all of us on the MNC Board.

One specific goal we have for the 2007-2008 MNC year is to update our website to make it more useable for everyone. Alan Majka has graciously taken the lead role for a website subcommittee. They will be working with a contractor to give us a new look. We will be getting ideas from other Nutrition Council websites to come up with our website appearance, and hope to have a new site to share sometime in 2008. If anyone has specific ideas you would like to share, please contact Alan at amajka@umext.maine.edu

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Message (Continued from Page 1)

The Council will be offering scholarships again this year for students enrolled in nutrition or culinary art programs in Maine colleges and universities. One $500 scholarship will be awarded to a student enrolled full-time in each of the following programs:

- Sophomore or junior year at the University of Maine Department of Food Science and Human Nutrition.
- First or second year in a Maine Dietetic Technician Program
- First year in a Maine Culinary Arts Program

If you know of students who are enrolled in any of these programs, please encourage them to apply. Notices will be sent out to the schools later this year.

At the Fall MNC educational event, we heard about the new Fruits and Veggies More Matters campaign from Mary Ellen Doyle of the Maine CDC Physical Activity and Nutrition (PAN) Program. The previous 5 A Day campaign has been transformed, based on input from the public. Please see the article Mary Ellen has provided on page 4 of this newsletter for more information, including the website for the campaign.

I wish everyone very Happy Holidays.

Karen Gallagher, Chair
Maine Nutrition Council

Save the Date in 2008!!

Maine Nutrition Council Quarterly Event: January 9 (snow date January 16)
Scholarship Applications due: February 15
Katherine O. Musgrave Award nominations due: February 15
Maine Nutrition Council/Maine Dietetic Association Annual Conference: March 20 at the Augusta Civic Center
Maine Nutrition Council Quarterly Event: May 1
MDA Fall conference — one step on the path... 
to a stronger profession and a healthier Maine

Nov. 5, 2007, Maine Medical Center, Portland

LEARN — about the Nutrition Care Process from Sylvia Escott-Stump, MA, RD, LDN, chair of ADA’s Standardized Language Task Force, who will provide cutting-edge information that every dietetics practitioner needs to know. One of the primary goals behind the implementation of NCP is for all dietetics professionals to be “speaking the same language” in order to further identify RDs and DTRs as America’s nutrition experts.

JOIN — the fight against obesity with afternoon presentations by Ken Lombard, MD, Director of the Countdown to a Healthy ME program at Maine Medical Center, as well as one of the leaders of the Maine Youth Overweight Collaborative, and by Ann Maloney, MD, Child and Adolescent Research Psychiatrist at MMC, who is conducting research on middle school youth and exercise as part of Generation Fit, a Maine Take Time project.

EARN — 6 CEUs for the amazingly low MDA member price of $35! MDA is committed to helping our members obtain the education needed to stay at the forefront, and this great member benefit proves it.

AND — to welcome those entering our profession and to recognize the outstanding contributions of Maine’s Dietetic Technicians, we are pleased to extend this discounted price to nonmember students and DTRs.

MEET — your colleagues from around the state, share your knowledge and experiences in a setting designed just for Maine’s food and nutrition experts.

CELEBRATE — the accomplishments of your fellow MDA members as we present our annual awards to RDs and DTRs who are truly making a difference.

WIN — one of 25 copies of the Purple Book — Standardized Language for the Nutrition Care Process. Or maybe you’ll win the raffle for a free ADA membership!

SHAKE — your booty with demonstrations of Dance Dance Revolution, the revolutionary video game that is part of Dr. Maloney’s research on exercise in schools. Bring your dancing shoes!

FIND — more information on this great conference — including registration information — at www.eatrightmaine.org

SEE—you in Portland!
PAN Training Series

The Maine Physical Activity and Nutrition Program (aka “PAN Program”) is making plans for a **four part** training series to help anyone developing programs with either a physical activity or nutrition focus. The **PAN Training Series** will offer skill-building training and networking opportunities, and each session is intended to build upon each other. Mark your calendar now for the following training offerings:

- **December 11, 2007**—**Make Change Happen: Implementing Evidence-Based PAN Practice**—Bangor Civic Center
- **January 8, 2008**—**You Can Do It! Translating Social Marketing Principles into Practice**—Augusta Civic Center
- **March 4, 2008**—**Implementing Evidence-Based Nutrition Practice**—Augusta Civic Center
- **May 7, 2008**—**If You Build It Will They Come? The Built Environment and Physical Activity**—Eastland Park Hotel, Portland

All trainings will be $45 each, with a $5 discount offered if participants register for all four events (discount will be given for fourth session). CEU’s will be provided for dietitians (RD), dietetic technicians (DTR) and health educators (CHES).

For more information, contact Rebecca Drewette-Card at Rebecca.DrewetteCard@maine.gov or 287-5084, or Mary Ellen Doyle at MaryEllen.Doyle@maine.gov or 287-5041.
National Nutrition Month® is a nutrition education and information campaign sponsored annually by the American Dietetic Association. The campaign is designed to focus attention on the importance of making informed food choices and developing sound eating and physical activity habits. NNM also promotes ADA and its members to the public and the media as the most valuable and credible source of timely, scientifically based food and nutrition information.

For more information, visit [www.eatright.org](http://www.eatright.org) or email nnm@eatright.org.

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**Fruits & Veggies—More Matters™**

While research indicates that more than 50 percent of adult consumers know they need to eat five or more servings of fruits and vegetables per day, more than 90 percent of all Americans do not eat the recommended amount. To meet the new dietary guidelines
introduced in 2005, most consumers will have to more than double the amount they currently consume.

Fruits & Veggies—More Matters™ is a new health initiative designed to help close this “consumption gap,” making increased consumption attainable and easy for people to understand.

Led by Produce for Better Health Foundation (PBH) and the Centers for Disease Control and Prevention (CDC), this initiative replaces the existing 5 A Day awareness program.

Fruits & Veggies—More Matters will leverage the 5 A Day heritage and success to further inspire and support consumers to eat more, showcasing the unrivaled combination of great taste, nutrition, choice and product variety of fruits and veggies—fresh, frozen, canned, dried and 100% juice. It also will build upon the body of science that indicates that increased daily consumption of fruits and vegetables may help prevent many chronic diseases.

In October 2006, PBH surveyed more than 500 moms to learn what kind of information would increase their likelihood of serving their families more fruits and vegetables. If they are to succeed in introducing more fruits and vegetables into their family’s diet, Moms emphasized their need for:

- Access to fast, simple recipes and serving suggestions,
- Tips on how different forms of fruits and veggies can fit into family mealtimes, and
- Ideas on how to include fruits and vegetables on a tight budget.

Fruits & Veggies—More Matters was launched in March 2007 to help Americans overcome common everyday barriers to eating fruits and veggies. The Fruits & Veggies—More Matters web site [www.fruitsandveggiesmorematters.org](http://www.fruitsandveggiesmorematters.org) will have a rich depository of tips and recipes from nutritionists, the CDC, and the nation’s moms.

Maine will sign a license with the CDC to use the Fruits & Veggies—More Matters™ brand in the fall of 2007. **Until then Fruit & Veggies- More Matters should not be placed on any locally created nutrition education handouts, pamphlets, posters or any other fruit and vegetable promotional materials.** Maine has access to nationally created materials carrying the new Fruits & Veggies—More Matters brand logo that can be used without signing a license agreement. This is the beginning of an exciting new initiative so please stay tuned, there’s more to come!

If you would like more information about the Fruit and Veggie- More Matters™ brand please contact your Fruit and Vegetable Council State Coordinator at maryellen.doyle@maine.gov or (207) 287-5041 or visit the website: [http://www.fruitsandveggiesmorematters.org](http://www.fruitsandveggiesmorematters.org).
Tell us what you think!

The Membership & Public Relations Committee wants to hear from you. Let us know what you want included in future newsletter so that we may better serve you. This publication may be accessed on-line at www.mainenutritioncouncil.org

Contact Alan Majka at 622-7546 or amajka@umext.maine.edu for more information.

As Americans struggle with often conflicting, confusing advice about what should and shouldn’t eat, the Nutrient Rich Foods Coalition has launched a new Web site, www.nutrientrichfoods.org.
www.NutrientRichFoods.org, as a first step towards clarifying current nutrition information and guidelines. It offers guidance on how to choose more nutrient-rich foods for a healthier diet, echoing the advice of the 2005 Dietary Guidelines for Americans (DGA) and MyPyramid.

Nutrient density is a long-standing dietary principle and the foundation of the 2005 Dietary Guidelines Advisory Committee (DGAC) report, which stated that Americans are becoming overfed yet undernourished and need to find ways to get more nutrition from their calories. However, consumers need help understanding how to follow this guidance and enjoy nutrient-dense foods first. The Nutrient Rich Foods Coalition is advancing scientific and market research to develop tools that make it easier for people to understand and incorporate nutrient-rich foods – or those that provide the richest source of nutrients relative to calories – into their healthy lifestyle.

“Now is the time to clear up consumer confusion and provide a simple, science-based way for people to feel good about what they can eat for better nutrition,” said Nutrient Rich Foods Coalition Scientific Advisory Committee member and principal researcher Adam Drewnowski, PhD, University of Washington. “Our research helps identify foods that provide more nutrition per bite in order to help people make smarter food and beverage choices.” The Nutrient Rich Foods Coalition is working closely with Drewnowski to develop a scientific score to identify the most nutrient-rich foods from the many choices available.

In line with the Dietary Guidelines and MyPyramid recommendations, a practice paper article in May’s Journal of the American Dietetic Association outlined the important role nutrient density plays in Americans’ diets. The paper summarized the current nutrient density environment and evaluated different approaches to determining the nutrient quality of foods and beverages. It also offered strategies on how health professionals can help people include more nutritional value in their diets.

“As obesity rates rise and the nation strives to reduce calories, getting more nutrients from fewer calories makes sense,” said Kathleen Zelman, MS, RD, a member of the ADA and advisor to the Nutrient Rich Foods Coalition. “People want to enjoy their meals and get more nutrition – they just don’t know how to do it. The information on NutrientRichFoods.org will help them strike that balance.”

Recognizing that people want easy-to-use advice based on the recommendations from the Dietary Guidelines and MyPyramid, part of the Nutrient Rich Foods Coalition’s efforts include offering that advice through educational guidance to health professionals and through the new Web site, which will include a searchable nutrient-rich recipe database in the future and updated information on the latest scientific research. The site’s nutrient-rich menus, recipe ideas, tips and grocery shopping lists make enjoying a nutrient-rich diet easier and more appetizing.
These nutrient-rich foods are emphasized as the foundation for a healthy diet:

• Brightly colored fruits and 100% fruit juice
• Vibrant colored vegetables
• Whole, fortified and fiber-rich grain foods
• Low-fat and fat-free milk, cheese and yogurt
• Lean meats, skinless poultry, fish, eggs, beans and nuts

The Nutrient Rich Foods Coalition has also developed the *Live Well!* tool kit, an educational guide for health professionals to use with their clients. The kit can be downloaded at www.NutrientRichFoods.org and includes several resources to help people follow MyPyramid and get more nutrition from their calories.

The Nutrient Rich Foods Coalition formed in 2003 and initially hosted a scientific symposium in early 2004 that explored approaches to assessing the nutrient density of foods and beverages. Following the 2005 DGAC’s call for the development of a science-based definition of nutrient density, the Nutrient Rich Foods Coalition focused on working with leading researchers to develop and validate a score that measures the nutrient density of foods. Using that research, the Nutrient Rich Foods Coalition also will be developing tools to help people apply the food score to choose nutrient-rich foods first and build healthy diets.


**Research Update: Benefits of Whey Protein on Muscle**

Whey protein is a high-quality dairy protein that contains all the amino acids the body requires for muscle protein synthesis. Evidence suggests that whey protein, found naturally in milk, increases muscle protein synthesis which in combination with resistance exercise can improve body composition. Below are summaries of recent studies that further explain the benefits of whey protein.

**Whey protein is one of the best sources of branched-chain amino acids (BCAA), including leucine, which has been shown to independently stimulate muscle protein synthesis**
This review article shares data from the USDA Food Composition Tables that show dairy products are rich sources of BCAAs and whey protein isolate is a leading source of leucine. The author cites several studies that give increasing evidence that BCAAs, specifically leucine, have a unique affect on metabolism that includes regulation of muscle protein synthesis and glucose homeostasis. The impact of BCAAs is proportional to availability and dietary intake.

Layman DK. The role of leucine in weight loss diets and glucose homeostasis. *Journal of Nutrition.* 2003;133:261S-267S.

**Consuming whey protein after resistance exercise can stimulate protein synthesis**

Ingestion of amino acids is known to stimulate protein synthesis and result in a positive net muscle protein balance. Tipton and colleagues investigated whether consumption of casein or whey proteins have a similar beneficial effect following resistance exercise. Healthy untrained volunteers were randomly assigned to receive a drink containing either: (1) 20 g casein (N=7); (2) 20 g whey protein (N=9); or (3) placebo (N = 7) one-hour after performing a bout of resistance training. Leg muscle biopsies were taken to measure net muscle protein balance. Consumption of both casein and whey proteins were found to bring about a similar positive net muscle protein balance, indicating that whole protein consumption can stimulate muscle protein synthesis after resistance exercise which over time could lead to increased muscle size and strength.


**Consumption of Fluid Skim Milk Promotes Greater Muscle Protein Accretion After Resistance Exercise Than Does Consumption of an Isonitrogenous and Isoenergetic Soy-Protein Beverage**

This study examined the effect of consuming a milk or soy beverage on rates of whole body protein synthesis, breakdown, and leucine oxidation, as well as muscle protein synthesis and net muscle protein balance following resistance training in eight young men who regularly participated in weight lifting activities. Volunteers drank fluid milk or a soy protein beverage after a bout of weight lifting. The drinks were made from isolated soy protein or nonfat milk powder and were equal in protein, carbohydrate, fat and caloric content. Results indicate that consuming a protein beverage (soy or milk) following weight lifting resulted in a positive net muscle protein balance and more muscle protein synthesis. Milk consumption after exercise resulted in a greater net muscle protein balance, and 34 percent more muscle protein synthesis compared to soy. The researchers also hypothesized that a combination of "slow" and "fast" proteins like casein and whey, both found in cow's milk, would be most effective for building muscle.


**Ingesting whey protein with or without creatine after resistance exercise results in greater gains in muscle mass and strength compared to carbohydrate**

Burke and colleagues tested the effects of whey protein supplementation, both with and without creatine monohydrate, combined with resistance training on muscle mass and strength. Thirty-six healthy, resistance trained males were randomly placed into one of
three groups receiving supplementation of: (1) whey protein and creatine, (2) whey protein, or (3) carbohydrate placebo during six weeks of resistance training. Males receiving whey protein (with or without creatine) had greater improvements in muscle mass and knee extension peak torque compared to those receiving a carbohydrate placebo during the six week training program. Additionally, subjects that supplemented with whey protein and creatine had greater increases in muscle mass and bench press than the other groups. However, other measures of muscular strength such as squat strength and knee flexion peak torque were not influenced by supplementation. In conclusion, whey protein consumption during resistance training may provide some benefits over resistance training alone.


**Creatine and Whey Protein Together Increase Muscle Fiber Size and Muscle Strength**

Researchers from Victoria University and the University of Tasmania in Australia examined the impact of resistance exercise training and nutritional supplementation on body composition, muscle fiber size and contractile protein content, and muscle strength in a group of resistance-trained men. Twenty six volunteers were randomly placed into one of four groups receiving supplementation of: (1) creatine/whey protein, (2) creatine/carbohydrate, (3) whey protein only, or (4) carbohydrate only. Results showed that all subjects experienced a significant increase in lean body mass following the 11-weeks of training, with the creatine/carbohydrate group experiencing a significant increase in lean body mass as compared to the carbohydrate only group. Furthermore, the creatine/carbohydrate and creatine/whey protein groups experienced greater gains in muscle fiber size compared to carbohydrate alone, while creatine/carbohydrate, creatine/whey protein and whey protein alone experienced greater gains in contractile protein content and muscle strength compared to CHO. Supplementation with whey protein with or without creatine, or creatine with carbohydrate may be more effective than carbohydrate alone in eliciting the changes in muscle size and strength that accompany routine resistance training.


**Whey Protein Isolate, Not Casein, Improves Strength and Body Composition**

Cribb et al. found that whey protein isolate has a greater ability to enhance the changes in body composition and strength that accompany routine resistance exercise compared to casein. In this 12-week, double-blind study, 13 male recreational body builders supplemented their normal diet with one of two proteins: hydrolyzed whey isolate or casein. Researchers examined the effects of protein supplementation on strength, body composition and glutamine levels in the blood before and after a 10-week resistance training program. Results of the study indicate that the hydrolyzed whey protein isolate group achieved a significant increase in lean body mass and a significant decrease in body fat, while the casein group showed no significant change in body composition. Additionally, while all subjects experienced increases in strength following the 10-week training
program, the subjects who consumed whey protein showed significantly greater strength improvements in three exercises (barbell squat, bench press, and cable pull-down) compared to those who consumed casein. There were no significant effects of either training or supplementation on blood glutamine levels for either group.


**Supplementation with Whey Protein/Creatine/Carbohydrate Before and After Workouts Enhances Results**

In this 10-week, single-blind, randomized study, 17 resistance trained males were matched for strength and placed in one of two groups: (1) a group who consumed a supplement containing protein/creatine/glucose immediately before and after a workout or (2) a group who consumed the same supplement in the morning before breakfast and late evening each training day. Findings of the study indicate that after 10 weeks of training, supplementation before and after each workout resulted in significantly greater improvements in strength and body composition (increase in lean body mass and decrease in body fat percentage) compared with those who took a supplement in the morning and late evening. The authors conclude a whey protein/creatine/carbohydrate supplement may enhance the desired changes from strength training, when taken immediately before and after a workout session.


For additional information about the health benefits of whey protein, visit:

http://www.nationaldairycouncil.org
http://www.healthywhey.org
http://www.wheyproteininstitute.org

USDA ANNOUNCES NEW MYPYRAMID FOR PREGNANT AND NURSING MOMS

WASHINGTON, Oct. 25, 2007 -- Acting Secretary of Agriculture Chuck Conner today announced the launch of a new MyPyramid web site designed specifically for pregnant and breastfeeding mothers. The new interactive guidance, found at MyPyramid.gov, provides unique, individualized nutrition guidance to meet the needs of expectant and new moms.

"The Department of Agriculture and the George Washington University Medical Center are pleased to announce this valuable on-line tool to assist pregnant and nursing mothers with easy access to important nutrition information," said Conner. "During
this time of life, proper nutrition for mom and baby are critical. This tool will also be helpful to obstetricians and other health care providers. I am confident this addition to MyPyramid will be put to good use, based on the more than 3.9 billion hits to MyPyramid web sites since our 2005 launch."

"The American Dietetic Association commends USDA for developing this valuable tool," said registered dietitian and American Dietetic Association President Connie B. Diekman. "MyPyramid for Pregnancy and Breastfeeding will provide registered dietitians with a valuable tool to use as they help women obtain the best possible nutrition for themselves and for their children."

Developed by the USDA Center for Nutrition Policy and Promotion, in conjunction with the Food and Nutrition Service's Women, Infants and Children Program and the Department of Health and Human Services, this new web site provides nutrition guidance consistent with the 2005 Dietary Guidelines for Americans.

Obtaining a personalized "MyPyramid Plan for Moms" requires only a few steps. A pregnant woman enters her age, height, pre-pregnancy weight, physical activity level, and due date. A breastfeeding woman enters similar information and the baby's birth date. Breastfeeding women will also select if they are feeding their baby breast milk only or supplementing with formula. Following these entries, a personalized MyPyramid Plan for Moms will be provided on their computer screen which can be downloaded as a full-color printout.

Following the original 2005 release of MyPyramid.gov, which contained the MyPyramid Plan and MyPyramid Tracker, USDA launched MyPyramid for Kids and the Spanish language MiPiramide. The web site announced today, MyPyramid for Moms, is the first addition to MyPyramid developed specifically for pregnant and nursing mothers.

Within the next few months, USDA plans to release another on-line tool known as MyPyramid Menu Planner. The Menu Planner will be a simple, easy to use meal planning tool based on MyPyramid recommendations that will provide users with real-time feedback on planned food choices.

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**A Review of the Ellyn Satter Eating Competency Model**

By Kimberly Lyman, Graduate Student, University of Maine

The Journal of Nutrition Education and Behavior recently published a series of articles encompassing Ellyn Satter’s Eating Competence model (ecSatter).* The articles touched on ecSatter’s *Hierarchy of Food Needs*, nutrition education using the model, the definition and evidence for ecSatter, research on implementation of the model with middle school students and positive commentary from leaders at NIH and USDA.

Each of the published articles exemplifies an alternative to the conventional method of performing nutrition education. It raises the question to how we’re implementing nutrition education and how
effective our methods have been in regards to changing behavior in clients. The conventional approach to body weight has been the calculation of one’s body mass index (BMI) to determine one’s healthy weight and then to attempt to influence it through externally directed diet and exercise. In contrast, ecSatter follows the idea that genetics largely decides one’s body weight and eating attitudes, food acceptance, internal regulation of food intake and activity, body weight stability and eating context are priorities for a healthy lifestyle.

In regards to eating attitudes, ecSatter involves a more constructive and adaptable approach as related to internal feelings about food and eating. Conventionally, nutrition educators would often describe particular foods as either good or bad in order to alter one’s attitudes toward these foods. This raises anxieties about food and eating. Moreover, accepting foods in the ecSatter model encompasses the idea of choosing foods that inspire one to consume an array of nutritious and enjoyable foods.

The traditional approach has been to sustain nutritional status through externally altered food selection standards. As defined by ecSatter, one’s internal cues drive the regulation of food intake. The thought behind this approach implies sustaining energy balance through recognition of internal cues for hunger, appetite and fullness. Conventionally, one’s hunger, appetite, and satiety were subordinate to calculated calorie requirements, portions, and standard food choices as a way to overcome internal signals.

Activity, as defined by ecSatter, is an internally cued way to enhance one’s homeostatic processes; however, traditional approaches used externally “prescribed” duration and amount as a way to meet health and weight goals.

A further contrast between ecSatter and the conventional approach lies in the eating context. Historically, nutrition educators have set a calorie level that reflects the amounts and types of foods one should consume throughout a day, and may even be indicated on sample menus. Alternatively, the ecSatter model encourages structure and meal planning as a way to eat sufficient amounts of chosen foods offered at predictable times.

The discussed differences between the conventional approach and the ecSatter model reflect the need for further research to determine the most effective methods for meeting the public need and how behavior change is best accomplished.


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**Mission**

The Maine Nutrition Council contributes to the health and well being of Maine’s citizens through education, research, and advocacy. The Council uses its resources to:

- Promote healthful nutrition practices
- Support education in the areas of food and nutrition
- Stimulate research in nutrition and physical activity
- Promote changes in public attitudes and policies