



# Natural Standard

The Authority on Integrative Medicine

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## Probiotics for Food Poisoning



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The past few months have seen several food poisoning outbreaks across the United States- including the discovery of *Escherichia coli* (*E. coli*) in California-grown spinach, the *Norovirus* outbreak in oysters harvested off the coast of Texas and the *Salmonella* found in peanut butter manufactured in North Carolina. Amid these scares, a new study reports that probiotics may help in the prevention of food poisoning.

Probiotics are beneficial bacteria (sometimes referred to as "friendly germs") that help to maintain the health of the intestinal tract and aid in digestion. They also help keep potentially harmful organisms in the gut (harmful bacteria and yeasts) under control. Most probiotics come from food sources, especially cultured milk products. Probiotics can be consumed as capsules, tablets, beverages, powders, yogurts and other foods.

Probiotics are thought to be beneficial in two ways. First, probiotics reinforce the integrity of the intestinal lining as a protective barrier to prevent harmful organisms or materials from crossing into the body's bloodstream. Second, some probiotics have been found to secrete antimicrobial substances known as

"bacteriocins," which inhibit harmful bacteria.

Researchers from University College in Cork, Ireland explained that *Salmonella* spp. infection is a major cause of gastroenteritis, with many thousands of cases reported in the European Union every year. The use of probiotics may potentially improve this situation.

The study investigated the effects of oral treatment of pigs with a defined lactic acid bacteria culture mixture on both clinical and microbiological signs of *Salmonella enterica* serovar Typhimurium infection. Fifteen weaned pigs blocked by sex and weight were administered control milk or a mixture of five probiotic strains as either a milk fermentate or milk suspension for a total of 30 days. The mixture consisted of two strains of *Lactobacillus murinus* and one strain each of *Lactobacillus salivarius* subsp. *salivarius*, *Lactobacillus pentosus* and *Pediococcus pentosaceus*.

Following probiotic administration for six days, animals were challenged orally with serovar Typhimurium. The health of the animals and the microbiological composition of their feces were monitored for 23 days post-infection.

The study found that animals treated with probiotics showed reduced incidence, severity and duration of diarrhea. These animals also gained weight at a greater rate than control pigs administered skim milk. Mean fecal numbers of *Salmonella* were significantly reduced in probiotic-treated animals at 15 days post-infection.

Researchers concluded that the administration of probiotic bacteria improved both the clinical and microbiological outcome of *Salmonella* infection. These strains offer significant benefit for use in the food industry and may have potential in human applications.

For more information on probiotics, please visit [Natural Standard's Herbs & Supplements](#) database. To comment on this story, please click [here](#) to enter the [Natural Standard](#) blog.

#### References:

- 1) Casey PG, Gardiner GE, Casey G, et al. A Five-Strain Probiotic Combination Reduces Pathogen Shedding and Alleviates Disease Signs in Pigs Challenged with *Salmonella enterica* Serovar Typhimurium. *Appl Environ Microbiol.* 2007 Mar;73(6):1858-63. Epub 2007 Jan 19. [View Abstract](#).
- 2) Natural Standard: The Authority on Integrative Medicine. [www.naturalstandard.com](http://www.naturalstandard.com). Copyright © 2007.

## Creatine and Parkinson's Disease



The National Institute of Neurological Disorders and Stroke, part of the National Institutes of Health (NIH), is conducting a new clinical trial to examine creatine as a treatment for Parkinson's disease. Researchers believe that creatine may act as an antioxidant, preventing damage to brain cells.

According to the NIH press release, the double-blind, placebo-controlled study will be conducted at 51 medical centers in the United States and Canada and will include 1,720 patients with early-state Parkinson's disease.

Participants will have been diagnosed with Parkinson's disease within the past five years and will have

been treated for two years or less with drugs that increase levels of dopamine in the brain. Researchers explained that many symptoms of Parkinson's disease are due to a loss of dopamine, a neurotransmitter that helps control movement.

Although creatine is not currently approved for the treatment of Parkinson's or any other condition, it is believed to improve exercise performance. However, scientific evidence is still lacking.

Creatine is naturally synthesized in the human body from amino acids, primarily in the kidney and liver, and transported in the blood for use by muscles. Approximately 95 percent of the body's total creatine content is located in skeletal muscle. Creatine was discovered in the 1800s as an organic constituent of meat. In the 1970s, Soviet scientists reported that oral creatine supplements may improve athletic performance during brief, intense activities such as sprints.

Creatine gained popularity in the 1990s as a "natural" way to enhance athletic performance and build lean body mass. It was reported that skeletal muscle total creatine content increases with oral creatine supplementation, although response is variable. Factors that may account for this variation are carbohydrate intake, physical activity, training status and muscle fiber type. The finding that carbohydrate enhances muscle creatine uptake increased the market for creatine multi-ingredient sports drinks.

Use of creatine is particularly popular among adolescent athletes, who are reported to take doses that are not consistent with scientific evidence, and to frequently exceed recommended loading and maintenance doses. Published reports suggest that approximately 25 percent of professional baseball players and up to 50 percent of professional football players consume creatine supplements. Most athletic associations have not banned this supplement, including the International Olympic Committee, the International Amateur Athletic Federation and the National Collegiate Athletic Association.

Studies have suggested that creatine may improve the function of mitochondria, the energy producers in cells. Creatine may also act as an antioxidant preventing damage from compounds harmful to brain cells.

According to the Parkinson's disease Foundation (PDF), as many as one million Americans suffer from Parkinson's disease, a degenerative brain disorder that causes symptoms such as tremors, stiff muscles and slow movement. While there are drugs that can reduce these symptoms, there are currently no proven treatments to cure or slow the progression of the disease.

Previous studies suggest that creatine may be helpful in the treatment of various neuromuscular disease, such as amyotrophic lateral sclerosis (ALS) and myasthenia gravis, and may delay onset of symptoms when used as an adjunct to conventional treatment. However, although early results were encouraging, recent research has found no beneficial effects on survival or disease progression.

Integrative therapies with good scientific evidence for Parkinson's disease include 5-HTP and music therapy. For more information on these and other integrative therapy options for Parkinson's disease, please visit [Natural Standard's Condition Center](#) database. For more information on creatine, please visit [Natural Standard's Herbs & Supplements](#) database. To comment on this story, please click [here](#) to enter the [Natural Standard](#) blog.

#### **References:**

- 1) National Institutes of Health: Press Release March 2007. [View Press Release](#).
- 2) Natural Standard: The Authority on Integrative Medicine. [www.naturalstandard.com](http://www.naturalstandard.com). Copyright © 2007.
- 3) Parkinson's Disease Foundation (PDF). Accessed March 26, 2007. [www.pdf.org](http://www.pdf.org).

# *Nutrition and Health:*

State of the Science & Clinical Applications

May 14-16, 2007 • Manchester Grand Hyatt • San Diego, CA



This annual continuing education conference, co-sponsored by the University of Arizona Program in Integrative Medicine and Columbia University's Rosenthal Center for Complementary and Alternative Medicine, brings together an outstanding faculty of internationally known scientific researchers, skilled clinicians, innovative chefs and best-selling authors, to discuss the interface between nutrition and healthful living.

The conference, co-directed by Integrative Medicine pioneer and bestselling author Dr. Andrew Weil, will present the latest research on the science of nutrition and will emphasize practical clinical applications for physicians, dietitians, nurses, and other health professionals to use on a daily basis with their patients.

Conference registration is now open! To register, please contact the University of Arizona Office of Continuing Medical Education at 520.626.7832 or e-mail [uofacme@eamil.arizona.edu](mailto:uofacme@eamil.arizona.edu). For more information on the conference schedule, or to download a conference brochure, please visit [www.nutritionandhealthconf.org](http://www.nutritionandhealthconf.org).

If you would like us to post your event(s) online, please e-mail: [news@naturalstandard.com](mailto:news@naturalstandard.com).

## More Fruit, Less Meat to Reduce Colon Cancer Risk

Eating more fruit and less meat may help prevent precancerous colon polyps, a new study suggests.

Researchers from the University of North Carolina, Chapel Hill explained that recent evidence suggests overall dietary patterns, rather than specific dietary components, may be a better predictor of colorectal adenomas or cancers.

The scientists used cluster analysis to assess the association between dietary patterns and colorectal adenomas and determine whether adjusting for total energy consumption prior to creating clusters affects this relation.

Data from a case-control study of 725 individuals undergoing a colonoscopy was utilized; 203 patients had at least one adenoma or colonoscopy, 522 patients (the controls) had no adenomas. Dietary data was obtained from a food frequency questionnaire (FFQ).

Researchers calculated the daily intake for 18 different food groups and transformed the values into Z-



scores. Participants were first clustered without energy adjustment, then again based on their consumption per 1,000 kcal (4,187 kJ).

Researchers found that there was no association between dietary patterns and colorectal adenomas without energy adjustment prior to creating dietary clusters, as clusters formed as a by-product of energy consumption. However, after adjusting for energy consumption, three distinct clusters emerged: 1) high fruit-low meat cluster; 2) high vegetable-moderate meat cluster and; 3) high meat cluster.

The study revealed that after adjusting for potential confounders, the high vegetable-moderate meat cluster and high meat cluster were at significantly increased odds of having had an adenoma compared with the high fruit-low meat cluster. A high-fruit, low-meat diet appears to be protective against colorectal adenomas compared with a dietary pattern of increased vegetable and meat consumption.

Researchers suggested that individuals eat more fruit, less meat and continue eating recommended allowances of vegetables. This in light of a recent report released by the U.S. Centers for Disease Control and Prevention (CDC) stating that less than one third of Americans are getting the recommended daily allowances of fruits and vegetables.

Integrative therapies with strong or good scientific evidence in the prevention and/or treatment of colon cancer include vitamin A (retinol), probiotics, psychotherapy and selenium.

For more information on integrative therapies for colon cancer, please visit [Natural Standard's Condition Center](#). To comment on this story, please click [here](#) to enter the [Natural Standard](#) blog.

#### Reference:

- 1) Austin, GL, Adair LS, Galanko JA, et al. A Diet High in Fruits and Low in Meats Reduces the Risk of Colorectal Adenomas. *J. Nutr.* 137:999-1004, April 2007. [View Abstract](#).
- 2) Natural Standard: The Authority on Integrative Medicine. [www.naturalstandard.com](http://www.naturalstandard.com). Copyright © 2007.

## Boswellia for Osteoarthritis Pain

*Boswellia serrata* extract may be as effective as a selective COX-2 inhibitor for osteoarthritis pain relief, a new study reports.

Researchers in India from Government Medical College, Government Ayurved College, Indira Gandhi Government Medical College, and Pharamanza compared the efficacy, safety and tolerability of *Boswellia serrata* extract (BSE) in knee osteoarthritis (OA) with valdecoxib, a selective COX-2 inhibitor.



In the randomized, prospective, open-label, comparative study, the efficacy, safety and tolerability of BSE was compared with valdecoxib in 66 patients of OA of knee for six months. The patients were assessed by WOMAC scale at baseline and thereafter at monthly intervals until one month after drug discontinuation. Antero-posterior radiographs of affected knee joint were taken at baseline and after six months.

The study found that in the BSE group, the pain, stiffness and difficulty in performing daily activities

showed statistically significant improvement with two months of therapy that lasted one month after stopping the intervention. In the valdecoxib group, the statistically significant improvement in all parameters was reported after one month of therapy but the effect persisted only as long as drug therapy continued.

Three patients from the BSE group and two from the valdecoxib group complained of acidity. One patient from the BSE group complained of diarrhea and abdominal cramps.

Researchers concluded that BSE showed a slower onset of action but the effect persisted even after stopping therapy, while the action of valdecoxib became evident faster but waned rapidly after stopping the treatment.

Previous studies have found that as opposed to non-steroidal anti-inflammatory drugs (NSAIDs), long-term use of boswellia has not been shown to cause gastrointestinal irritation or ulceration, although adverse effects have not been systematically studied in humans. Boswellia has traditionally been used for a number of topical applications, including the treatment of acne, bacterial and fungal infections, boils, wound healing, scars and varicose veins. It is used cosmetically as a facial toner and to smooth wrinkles. Chinese herbalists use boswellia in powder form and in teas for rheumatism, menstrual pain and as an external wash for sores and bruises.

Historically, Boswellia has been utilized to improve emotional well-being and as part of religious rituals. It has been reported that it has the ability to enhance spirituality, mental perception, meditation, prayer and consciousness when burned (burning is said to produce a psychoactive substance, trans-hydrocannabinole). Boswellia has been noted in animal and *in vitro* studies to possess anti-inflammatory properties.

For more information on Boswellia, please visit [Natural Standard's Herbs & Supplements](#) database. To comment on this story, please click [here](#) to enter the [Natural Standard](#) blog.


**Reference:**

- 1) Natural Standard: The Authority on Integrative Medicine. [www.naturalstandard.com](http://www.naturalstandard.com). Copyright © 2007.
- 2) Sontakke S, Thawani V, Pimpalkhute S, et al. Open, randomized, controlled clinical trial of Boswellia serrata extract as compared to valdecoxib in osteoarthritis of knee. Indian J Pharmacol 2007;39:27-29. [View Abstract](#).



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# Alive! EXPO



*A World Of Health & Wellness Brought Together in One Weekend!*

**ATLANTA**  
April 28-29

ALIVE! Expo features lectures from prominent health industry representatives, nutritious cooking demonstrations, interactive Yoga/Pilates presentations and more than 100 national companies educating health-conscious consumers about products such as organic foods, cutting edge supplements and natural beauty products.

**Expo Hours:**

Sat., April 28: 10:00 am - 7:00 pm  
Sun., April 29: 11:00 am - 6:00 pm

New Additions to Atlanta Show: ALIVE! Expo is pleased to announce the addition of three keynote speakers at the weekend health and wellness event. Holistic healer Queen Afua, groundbreaking physiologist Dr. Hulda Clark and actor Dan Wells join a distinguished roster of health industry experts and medical professionals who present ALIVE! Expo guests with the most cutting edge natural and holistic health and healing information available.

**Registration:**

Tickets: \$10 for a one-day pass or \$15 for a weekend pass. VIP passes are available for \$25 and include: entry to show, preferred seating at lecture stage, complimentary Anti-Oxidant scan, complimentary spa treatment, gift bag, entry into VIP Gift Basket Drawing and more! Children 17 and under are free. For tickets or more information, please visit [www.aliveexpo.com](http://www.aliveexpo.com).

If you would like us to post your event(s) online, please e-mail: [news@naturalstandard.com](mailto:news@naturalstandard.com).

## Coffee: Balancing the Good with the Bad



Reducing the acrylamide content of coffee to protect against potential nervous system damage and carcinogenic effects may also negatively impact the flavor and nutritional benefits of the popular beverage, a new study reports.

Researchers at the European Commission in Belgium and Nestlé Product Technology Centre in Switzerland explained that because of the recognized toxicity of acrylamide, intensive efforts have been made to reduce the concentration of this undesired Maillard by-product in food. Acrylamide, a chemical compound that may damage the nervous system and is

carcinogenic in laboratory animals, is created when starchy foods are baked, roasted, fried or toasted.

The study involved a series of experiments aimed at determining the concentration of acrylamide and the *in vitro* radical scavenging capacity in the same roasted and ground coffee samples, as it is well established that a significant part of the antioxidant activity in coffee is linked to the melanoidins, which are also considered Maillard reaction products (MRPs).

The radical scavenging capacity was measured using electroparamagnetic resonance (EPR). Coffee samples from the Robusta and Arabica varieties were roasted at 236 °C (456.8 °F) over different time periods to obtain very light, light, medium and dark roasts. Color analyses were performed on all samples.

The study found that increasing the roasting degree led to a decrease in acrylamide concentration as well as radical scavenging capacity. Researchers concluded that any mitigation efforts must also take into account the potential loss of desired food constituents and consequently changes to the risk/benefit characteristics of foods.

According to the International Coffee Organization (ICO), coffee originated in the Horn of Africa, in Ethiopia. The ICO claims that North Americans are the world's largest consumers. Additionally, coffee may be one of the most valuable primary products in world trade, with the ICO reporting that in recent years, coffee has been second in value only to oil as a source of foreign exchange to developing countries. Its cultivation, processing, trading, transportation and marketing provide employment for millions of people worldwide. The ICO reports that in many developing countries, exports of coffee account for a substantial part of their foreign exchange earnings- in some cases over 80 percent. Coffee is produced in over 60 countries, generating more than \$70 billion in retail sales annually.

For more information on the health benefits and risk associated with coffee, please visit [Natural Standard's Herbs and Supplements](#) database. To comment on this story, please click [here](#) to enter the [Natural Standard](#) blog.

#### References:

- 1) International Coffee Organization (ICO). Accessed March 26, 2007. [www.ico.org](http://www.ico.org).
- 2) Natural Standard: The Authority on Integrative Medicine. [www.naturalstandard.com](http://www.naturalstandard.com). Copyright © 2007.
- 3) Summa CA, de la Calle B, Brohee M, et al. Impact of the roasting degree of coffee on the in vitro radical scavenging capacity and content of acrylamide. *LWT - Food Science and Technology*, In Press, Corrected Proof, Available online 21 February 2007, Accessed April 2007. [View Abstract](#).

## Physical Activity, Recreation Resources and Fitness



Several recent studies have examined the correlation between community surroundings (recreational resources, public parks, etc) and how much physical activity residents participate in; all found that physical activity was highest in communities with surroundings conducive to exercise.

The four studies were conducted in Geneva, Switzerland; Seattle, Washington; Santa Monica, California; and Ann Arbor, Michigan.

In the Swiss study, researchers from Geneva University Hospital examined energy balance at the population level by analyzing physical activity levels. The researchers estimated the amount of physical activity required for individuals to

expend an additional 418.4 kJ (100 kcal) per day with the goal of achieving energy balance at the population level.

Data on total daily energy expenditures was derived from a random sample of adults residing in Geneva, Switzerland, who completed a self-administered physical activity frequency questionnaire. The data was used to simulate the effects of typical physical activity pyramid recommendations on average population energy expenditures for various activity intensities and rates of population compliance with pyramid recommendations.

The study found that if an average 418.4 kJ (100 kcal) per day increase in energy expenditures is to be achieved, assuming 100 percent compliance with physical activity pyramid recommendations, the bottom tier of the pyramid must correspond to everyday activities performed at moderate to high intensity levels (e.g., moderate walking or biking). Expected population gains in energy expenditures would be only 167.4 to 251.0 kJ (40 to 60 kcal) per day at a 50 percent compliance rate.

The researchers concluded that achieving population-level energy balance through increasing energy expenditures with physical activity increases alone would require profound structural and environmental changes promoting more active lifestyles.

In a related study, scientists from the University of Washington in Seattle examined whether older persons who live in areas that are conducive to walking are more active and/or less obese than those living in areas where walking is more difficult.

Data from the Adult Changes in Thought cohort study for a cross-sectional analysis of 936 participants aged 65 to 97 years was used. The Walkable and Bikable Communities Project previously formulated a walkability score to predict the probability of walking in King County, Washington.

Data from the cohort study was linked to the walkability score at the participant level using a geographic information system. Analyses tested for associations between walkability score and activity and body mass index. The study found that higher walkability scores were associated with significantly more walking for exercise across buffers (circular zones around each respondent's home) of varying radii. A trend toward lower body mass index in men living in more walkable neighborhoods did not reach statistical significance.

Researchers concluded that neighborhood characteristics are associated with the frequency of walking for physical activity in older people. Whether frequency of walking reduces obesity prevalence is less clear.

Scientists from the RAND Corporation in California more specifically examined the relationship of public parks and amount of physical activity in the local population. The study explained that parks provide places for people to experience nature, engage in physical activity and relax. Researchers examined how residents in low-income, minority communities use public, urban neighborhood parks and how parks contribute to physical activity.

In eight public parks, researchers conducted direct observation to document the number, gender, race/ethnicity, age group and activity level of park users four times per day, seven days per week. Researchers also interviewed 713 park users and 605 area residents living within two miles of each park.

The study found that on average, over 2,000 individuals were counted in each park, and about two thirds were inactive when observed. More males than females used the parks and males were twice as likely to be vigorously active. Interviewees identified the park as the most common place they exercised. Both park use and exercise levels of individuals were predicted by the proximity of their residence to the park.

The study concluded that public parks are critical resources for physical activity in minority communities. Researchers suggested that because residential proximity is strongly associated with physical activity and

park use, the number and location of parks are currently insufficient to serve local populations well.

And finally, a study at the University of Michigan looked at the relationship between certain environmental factors and physical activity using data from a large cohort of adults aged 45 to 84 years old.

Researchers investigated whether availability of recreational resources is related to physical activity levels. Data from a multiethnic sample of 2,723 adult residents of New York City, New York; Baltimore, Maryland; and Forsyth County, North Carolina, were linked to data on locations of recreational resources. Scientists measured the availability (density) of resources within 0.5 (0.8 km), 1, 2 and 5 miles of each participant's residence and used binomial regression to investigate associations of density with physical activity.

After adjustment for potential confounders, the study found that individuals in the tertile (top third) of participants residing in areas with the highest density of resources were more likely to report physical activity during a typical week than were individuals in the lowest tertile.

Associations between availability of recreational resources and physical activity levels were not present for the smallest area assessed (0.5 miles), but were present for areas ranging from 1 to 5 miles. These associations were slightly stronger among minority and low-income residents.

The study concluded that availability of resources may be one of several environmental factors that influence individuals' physical activity behaviors.

Exercise is any physical activity that helps to promote overall health. Most movement of the body is considered beneficial, as long as it is done in moderation and at the skill level of the person. Any form of physical activity is considered exercise, so long as the heart pumps faster and breathing rate increases to perform the activity.

There are many ways for people to exercise including, gardening, walking, sports activities and dancing. Patients beginning an exercise program should choose activities that fit their levels of strength and endurance. Exercise that causes extreme pain or discomfort is considered by many experts as unhealthy, and may even cause permanent damage to the body.

Exercising on a regular basis may decrease the risk of developing many illnesses, such as heart disease. According to the U.S. Centers for Disease Control and Prevention (CDC), 50 percent of Americans do not exercise enough to achieve health benefits. Physical fitness and dietary intake are good indicators of a person's overall likelihood of developing serious and chronic health problems.

To maintain a healthy weight, an individual's intake of energy should be about equal to the energies used. This activity calculator will give an individual an idea as to how many calories to burn to maintain a healthy weight. Note that good nutrition is also a must to be healthy.

For more information on exercise and for an activity calculator, please visit [Natural Standard's Health & Wellness](#) database. To comment on this story, please click [here](#) to enter the [Natural Standard](#) blog.

#### **References:**

1) Berke EM, Koepsell TD, Moudon AV, et al. Association of the built environment with physical activity and obesity in older persons. *Am J Public Health*. 2007 Mar;97(3):486-92. Epub 2007 Jan 31. [View Abstract](#).

2) Cohen DA, McKenzie TL, Sehgal A, et al. Contribution of public parks to physical activity. *Am J Public*

Health. 2007 Mar;97(3):509-14. Epub 2007 Jan 31. [View Abstract](#).

3) Costanza MC, Beer-Borst S, Morabia A. Achieving energy balance at the population level through increases in physical activity. Am J Public Health. 2007 Mar;97(3):520-5. Epub 2007 Jan 31. [View Abstract](#).

4) Diez Roux AV, Evenson KR, McGinn AP, et al. Availability of recreational resources and physical activity in adults. Am J Public Health. 2007 Mar;97(3):493-9. Epub 2007 Jan 31. [View Abstract](#).

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## Be The Change in Healthcare Conference

Tuesday, May 1 – Thursday, May 3, 2007  
Rice University - Houston, TX.

This conference will bring together world-renowned scholars and innovative change agents for a dialogue on supporting the emergence of a more compassionate, sustainable and effective healthcare system.

Speakers include Robert Thurman, Brad Keeney, David Himmelstein, George Annas, Jerome Kassirer, Marilyn Schlitz, Marc-Ian Barasch and many more. Evening events include a special session with the Bioneers and a concert with Kim Prevost and musicians from the Ninth ward of New Orleans.



To register or for more information, please visit [www.bethechangeusa.net](http://www.bethechangeusa.net).

If you would like us to post your event(s) online, please e-mail: [news@naturalstandard.com](mailto:news@naturalstandard.com).

## Diabetes and Chocolate

Polyphenols from cocoa (used to make chocolate) may offer diabetes benefits, a new study reports.

Researchers from Tokyo Medical and Dental University and the National Institute for Environmental Studies in Japan investigated the effects of dietary supplementation with cacao liquor proanthocyanidins (CLPr) on blood glucose levels in obese diabetic mice.

Researchers explained that effective approaches are needed to prevent the onset of type 2 diabetes mellitus, which has been increasing in developed countries. The present study examined whether dietary supplementation with CLPr may prevent elevation of blood glucose levels in mice with diabetes mellitus and obesity.

Diabetic obese mice and control mice were fed a diet containing 0 percent CLPr, 0.5 percent CLPr or 1.0 percent CLPr from age three weeks to age six weeks. Levels of blood glucose were measured at four and five weeks of age. The animals were sacrificed and the levels of blood glucose and fructosamine were measured at six weeks of age.

The study found that the levels of blood glucose and fructosamine were higher in the db/db mice than in the db/+m mice fed a diet containing 0 percent, 0.5 percent or 1.0 percent CLPr (72 percent total polyphenols). In the db/+m mice, the levels of blood glucose or fructosamine were not significantly different across animals fed 0 percent CLPr, 0.5 percent CLPr and 1.0 percent CLPr. In the db/db mice, however, a diet containing 0.5 percent or 1.0 percent CLPr decreased the levels of blood glucose and fructosamine compared with that containing 0 percent CLPr without significant effects on body weights or food consumption.

The proanthocyanidins reduced blood glucose levels in a dose-dependent manner. Indeed, blood glucose levels after four and five weeks of age, and of fructosamine at six weeks of age were significantly lower than in those fed 0 percent CLPr AIN-93 diet. Body weights and food consumption did not differ significantly among the groups. The 1.0 percent dose used in this study would be equivalent to a daily polyphenol intake of five grams for a human, or about 2.5 kilograms of normal chocolate, report researchers. However, studies using flavanol-rich dark chocolate have reported positive effects with intakes of only 100 grams of dark chocolate per day, providing a flavanol dose of 88 milligrams.

Further research is needed to investigate if such results can be repeated in humans, and what mechanism is responsible for these apparent benefits.

Researchers concluded that dietary supplementation with CLPr may dose-dependently prevent the development of hyperglycemia (high blood sugar) in diabetic obese mice. The dietary intake of food or drinks produced from cacao beans might be beneficial in preventing the onset of type 2 diabetes mellitus.

Integrative therapies with good scientific evidence in the treatment of diabetes include beta-glucan, bitter melon, ginseng, gymnema and stevia. For more information on these and other integrative therapy options for diabetes, please visit [Natural Standard's Condition Center](#) database. To comment on this story, please click [here](#) to enter the [Natural Standard](#) blog.

**Reference:**



1) Natural Standard: The Authority on Integrative Medicine. [www.naturalstandard.com](http://www.naturalstandard.com). Copyright © 2007.

2) Tomaru M, Takano H, Osakabe N, et al. Dietary supplementation with cacao liquor proanthocyanidins prevents elevation of blood glucose levels in diabetic obese mice. Nutrition. 2007 Mar 10. [View Abstract](#).

## Women's Healthcare Forum: Houston

Friday, May 18 – Saturday, May 19, 2007  
George R. Brown Convention Center - Houston,  
TX.

# Women's Healthcare Forum



Women's Healthcare Forum would like to invite all healthcare professionals to the 7th year of their CME program on comprehensive and integrative healthcare for women. Participating in Women's Healthcare Forum is an opportunity to be a part of a dynamic learning community and gain insight and knowledge on the unique healthcare needs of women. All attendees will receive two-weeks free access to the **Natural Standard** database.

### Women's Healthcare Forum Overview:

- Multi-track CME sessions covering 36 topics
- Earn up to 15 AMA/PRA category 1 credits
- CE credits available for nurse practitioners and registered nurses
- Concurrent 2007 Expo program includes an extensive array of exhibiting healthcare product and service companies, clinician panels, non-accredited educational presentations and professional networking events

**Registration Information:** Women's Healthcare Forum and **Natural Standard** are pleased to offer all **Natural Standard** subscribers a discounted registration fee. When registering, please use priority code: **WHFH705** to take advantage of this offer.

*New in 2007:* Expo-Only Registration—FREE! Expo-only registration is available for those who may not elect to participate in WHF's CME/CE program and provides unlimited access to the Expo hall and program.

To register, please visit [www.expotracsos.com/whfhouston](http://www.expotracsos.com/whfhouston). For more information about the Women's Healthcare Forum, please visit [www.womenshf.com](http://www.womenshf.com).

If you would like us to post your event(s) online, please e-mail: [news@naturalstandard.com](mailto:news@naturalstandard.com).

Inside Natural Standard



## Natural Standard Launches NEW Allergy & Immunology Database!!!

Spring is here! The flowers are in bloom, the sunshine and warm weather are finally here, the birds are chirping, the bees are buzzing and...one out of every five Americans is suffering from allergies. Don't let the sniffles, itchy eyes, congestion and inflamed sinuses get the best of you- check out **Natural Standard's** new [Allergy & Immunology](#) database. Find information on the background, symptoms, causes and conventional and integrative therapies for *hundreds* of allergies!

Visit **Natural Standard's** new [blog](#)! This is your opportunity to communicate with members from all over the world on important integrative medicine topics. The blog is FREE to the public!

**Natural Standard's Herbs and Supplements Reference Book** is now available in Japanese! Please visit [here](#) for more details.

Massachusetts College of Pharmacy and Health Sciences (MCPHS) is proud to introduce a new part-time evening Master of Applied Natural Products (MANP) degree program. This unique program is geared towards working health care professionals who are interested in expanding their knowledge in the area of natural products, herbal and dietary supplements. **Natural Standard's** founder, Dr. Catherine Ulbricht, will be lecturing. For more information, please visit [www.mcphs.edu](http://www.mcphs.edu).

## Natural Standard wishes you a Happy Spring!!!

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