Nutrition SPOTLight

January/February 1999 Volume 2 Issue 1

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Functional Foods: A Prescription for Health?

In this issue we shine the spotlight on Functional Foods. Our feature story (below) provides you with basic background information about functional foods. On page 4, we examine supplement ads through the eyes of the Federal Trade Commission. On page 5, we show you different functional food components, potential benefits and food sources.

We read about functional foods and hear about them on television. Just what is a functional food? Functional foods can be defined as foods that contain components that impart health benefits beyond basic nutrition. As the functional attributes of many traditional foods are being discovered, new food products are being developed to enhance or incorporate the beneficial components. It is estimated that 50% of the U.S. food market (\$250 billion) may be attributable to functional foods if taken at its broadest definition to include dietary supplements, sugar substitutes, fat substitutes, fiber-enriched foods, vegetables, fatless meat, skim milk, low-calorie diets, etc.

Is there a demand for functional foods?

Rapid growth in consumer interest in the relationship between diet and health has produced an



Is the science behind functional foods credible?

prepared to address.

Various approaches establishin scientific basis to support claims related to functional foods are being considered. However, assessing the science behind a claim is not straightforward. FDA by law regulates food products differently than dietary supplements, according to their intended use and the nature of claims made on the package. A further complication is that the distinction between a food and a dietary supplement is often not clear. Food products may claim a relationship between components in the diet and a disease or health condition; dietary supplements, on (con't on page 4, col. 1)

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Guidelines of Feeding Safety for Young Children

Feeding your child is a rewarding time, but is important that mealtime is a safe time. Parents and caregivers will want to guard against choking at each feeding. Here are some safety reminders:

• Teething gel can cause swallowing problems in young babies. Parents may rub teething medication on their babies' gums. This has potential for causing chewing and swallowing problems because the numbing effect of the gel can not only numb the gums, but also muscles in the throat. If parents do choose to use the medication, they will want to be particularly observant when they are feeding their babies.

• Eat now, play later. Children generally are very active, but mealtime and snack time are not compatible with play time. In fact, blending them can have harmful consequences if a child inhales a piece of food into his lungs. A calm feeding environment, without distractions, will help minimize the chance of choking. It is also important that a child always be sitting when eating.

• Adults present and involved! It is difficult for Mom to respond quickly if she is in the kitchen and her toddler is in the family room choking on a piece of food. It is also important that a older sibling not be given the sole responsibility for feeding a young child. They most likely would not have the skills to handle a choking incident.

• Giving food to a young child riding in a car should be avoided. It is not uncommon for parents to give tired and hungry preschoolers a little snack to hold them over until they get home from daycare or the grocery store. However, what if the child begins to choke? Would she even be noticed if the radio were on or traffic were heavy? If noticed right away, how safely and quickly could the parent pull over to the side of the road to administer first aid? *(con't on page 4, col.3)*

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<u>Calendar</u>

March	National Nutrition Month
March 1-5	National School Breakfast Week
March 23	National American Diabetes Alert Day
April 4	Easter
April 7	World Health Day
April 22	Earth Day
April 24-25	March of Dimes Walk America

Healthy Diet? How Are We Doing?

Americans still have a long way to go to eat a healthy diet, according to a recently released USDA survey. In comparing results from the 1994-1996 survey with those in 1989, more than half of all adults are overweight; only one in four gets enough milk group foods; only one person in six is eating enough fruit; and less than one in three gets the

recommended number of vegetable servings.

The best scores for the

Healthy Eating Index (HEI) were for cholesterol with 70 percent of the population getting 300 mg. cholesterol or less daily. The next best score (52.4% of the sample) was for variety, a measure of how well the survey participants met the standard of consuming at least half of a serving of 8 or more different kinds of foods in a day.

These findings are based on the most recent Continuing Survey of Food Intakes by Individuals (CSFII) for those 2 years and older. Using this 1994-1996 data, HEI has been formulated to track changes over time in American diets. The ten components of the HEI are based on the five major food groups in the Food Guide Pyramid: grains (breads, cereals, rice and pasta); vegetables; fruits; milk group (milk, yogurt, and cheese); and meat group (meat, poultry, fish, dry beans, eggs and nuts). Component 6 measures total fat, component 7 indicates saturated fat consumption, component 8 concerns total

Only 22 to 31 percent of people met dietary recommendations for grains, vegetables, milk, and measures

meat components.

intake, and component 10 notes variety in the diets.

total sodium

According to HEI, only 22 to 31 percent of people met dietary recommendations for grains, vegetables, milk, and meat components. The rest of the sample for these components was either in the "Needs Improvement" category or they had a "Poor" diet. Thirtyfive to 40 percent of people met the dietary recommendations for total fat, saturated fat, and sodium.

The bottom line is that the majority of people should improve most aspects of their diets. For example, Americans think they are eating enough fruits and vegetables, but there have only been slight improvements since the 1970s. On

SPO Ton EFNEP

In the last issue of Spotlight, we highlighted the thirty year success of EFNEP, the Expanded Food and Nutrition Education Program. This issue will focus on the celebration event here in Kansas!

Each year, EFNEP and FNP (Family Nutrition Program) counties gather to learn, share and recharge. The 1999 EFNEP-FNP Conference was February 2-4 at the Sedgwick County Extension Office in Wichita. This annual opportunity for education and camaraderie also served this year as site for Kansas EFNEP's 30th anniversary celebration.

It was our intent to bring together past EFNEP graduates, nutrition assistants, and agents, as well as present program the other hand, Americans have increased grain-based products nearly 40 percent. Much of this increase is in cereal, crackers and pretzels with help from mixed grain dishes like spaghetti and pizza. These are mostly made from refined rather than whole grain.

Children and young teens are drinking more soda than milk. Because building bones occurs mainly by age 25, nutritionists are concerned about this trend. Milk consumption has decreased 16 percent while soda consumption has increased 16 percent since the late 70s. With 57 percent of Americans eating something away from home each day, the popularity of soda as compared with milk beverage is not surprising.

As for sodium, men in the survey averaged over 4,000 mg. daily and women consumed nearly 3,000 mg. This compares with the moderate recommendation of 2,400 mg.

References: Bowman, S.A., Lino, M., Gerrior, S.A., Basiotis, P.P. 1998. The Healthy Eating Index, 1994-96. United States Department of Agriculture, Center for Nutrition Policy and Promotion, CNPP-5. Anonymous. Americans Are Not Eating Enough Produce and Grains. CNI Nutrition Week, September 18, 1998. P. 2-3.

participants. We hoped to spark many memories, and to kindle renewed interest in EFNEP's future as well as its most successful past.

A highlight of the conference was the Governor's Proclamation stating February 2 was Kansas EFNEP day.

We enjoyed visiting with you and celebrating EFNEP's first 30 years during the conference.

FTC To Scrutinize Dietary Supplement Industry Ads

The Federal Trade Commission has warned the dietary supplement industry to be more careful in their

advertisements, in both their outright imply to consumers. The agency issued a comprehensive guide-the Business Guide—to help the companies that make vitamin, mineral, and herbal supplements avoid making misleading and dangerous advertising claims about their products.

The dietary supplement industry has exploded in recent years, flooding the market with products that often carry deceptive advertising. "Consumer use of dietary supplements has increased dramatically in the last few years," said Jodie Bernstein, director of the Federal Trade Commission's (FTC) Bureau of Consumer Protection. "This Business Guide will go a long way to ensure that consumers are getting information that is truthful and adequately substantiated. Good players in the industry will have the

guidance they need. Others will continue to face vigorous enforcement by the FTC."

The dietary supplement claims, and what they industry has exploded in recent years, flooding the market with products that often carry deceptive advertising.

While the Food and Drug Administration has jurisdiction over dietary supplement labeling-health claims stated on

the product—FTC regulates their advertising practices. In the guide, FTC points out several examples of deceptive advertising. One ad for a weight-loss supplement shows pictures of a woman who lost 20 pounds in eight weeks while using the supplement. An asterisk next to her statement references a disclaimer in fine print at the bottom of the ad that reads, "Results may vary." The placement and size of the disclaimer is insufficiently prominent to effectively qualify the claim, according to FTC.

"To ensure that disclosures are effective, marketers should use clear language, avoid small type, place any qualifying information close to the claim being qualified, and avoid

making inconsistent statements that could undercut or contradict the disclosure," the guide says.

Some consumer groups say the guide will have little, if any, impact upon advertising practices. "It's really much ado about nothing," said Bruce Silverglade of the Center for Science in the Public Interest. "The FTC has essentially restated the current law in plain English for small companies." The big question, said Silverglade, is whether or not the law will actually be enforced. Thus far, FTC has a poor enforcement record, having only brought seven cases against dietary supplement makers 1998.

The agency's enforcement stands to get only weaker with proposed legislation in Congress that would require FTC to permit preliminary health claims in dietary supplement ads. Preliminary health claims could include the results of rat studies, said Silverglade.

Source: Community Nutrition Week Newsletter, Vol. XXVIII, No. 44, November 20, 1998.

Functional Foods (con't from page 1)

on the other hand, may make "structure and function" claims describing effects on normal function of the body.

Furthermore, the scientific community is only in the early stages of understanding the potential for functional foods: The public is often eager to react before there is scientific support. A large body of credible research is needed to confirm benefits of any functional food. Until this knowledge is more complete, to gain maximum health

benefits, consumers should strive to consume a wide variety of foods, including some of the examples listed in the table on page 5. The best advice is to include foods from all food groups, which would incorporate many potentially beneficial components.

Souce: International Food Information Council, Backgrounder - Functional Foods, August 1998 Spotlight on Functional Foods: Sources of functional components in foods and their potential benefits.

Feeding Safety (con't from page 2)

• Beware of Choking! Avoid giving preschoolers hard foods such as hot dogs, pieces of fruit and vegetables, or candy. If peanut butter is offered, spread it thinly on bread (blending it with banana or jelly makes it easier to swallow).

Many organizations such as the American Red Cross offer training in lifesaving skills for parents and caregivers of young children.

Source: American Academy of Pediatrics, Pediatric Nutrition Handbook, 1998.

Table of Functional Food Components

Dietary Fiber

Potential Benefit: may reduce risk of breast or colon cancer; may reduce risk of cardiovascular disease

Food Sources: wheat bran (insoluble fiber) oats (beta glucan) psyllium (soluble fiber)

Fatty Acids

Potential Benefit: may reduce risk of CVD, certain cancers

Food Sources: tuna, fish and marine oils (omega-3 fatty acids) cheese, meat products (conjugated linoleic acid CLA)

Phytoestrogens

Potential Benefit: may protect against heart disease and some cancers; may lower LDL cholesterol

> Food Sources: soybeans, soy-based foods (isoflavones) flax, rye, vegetables (lignans)

Sulfides (Thiols)

Potential Benefit: lower LDL cholesterol, maintain healthy immune system

Food Sources: onions, garlic, olives, leaks, scallions, cruciferous vegetables (diallyl sulfide, allyl methl trisulfide, dithiolthiones) Anti-adhesion Component

Potential Benefits: may improve urinary tract health

Food Source: cranberry juice cocktail

Collagen hydrolysate

Potential Benefit: may improve symptoms of osteoarthritis

> Food Source: gelatin

Plant Sterols (stanol ester)

Potential Benefit: lowers blood cholesterol levels

Food Source: table spreads

Saponins

Potential Benefit: may lower LDL cholesterol; contains anti-cancer enzymes

Food Source: soy beans, soy foods

Flavonoids

Potential Benefit: neutralize free radicals, may reduce cancer risk

> *Food Sources:* fruits (anthocyanins) tea (catechins) citrus (flavanones) fruits, vegetables (flavones) sulphoraphane (cruciferous vegetables, horseradish)

Phenols

Potential Benefit: antioxidant-like activities, may reduce risk of heart and eye disease

> *Food Sources:* fruits, vegetables, citrus (caffeic acid, ferulic acid)

Prebiotics/Probiotics

Potential Benefit: may improve quality of intestinal microflora

Food Sources: Jerusalem artichokes, shallots, onion powder (fructose-oligosaccharides, FOS) yogurt (lactobacillus)

Carotenoids

Potential Benefits:

neutralize free radicals which damage cells; maintenance of healthy vision; may reduce risk of cancer

> *Food Sources:* carrots (alpha-carotene) ts, vegetables (beta-caroten

fruits, vegetables (beta-carotene) green vegetables (lutein) tomato products (lycopene) eggs, citrus, corn (zeaxanthin)

SPOT<u>onTHE WEB</u> The Epicurious Dictionary



http://www.epicurious.com/db/dictionary/terms/indexes/dictionary.html

The Epicurious Dictionary website contains all entries from The Food Lover's Companion (2nd ed.), by Sharon Tyler Herbst, in an easy-to-use format. You can search by word, or browse alphabetically. What makes this dictionary so special is the links that you get within the definitions. For example, if searching for "panna cotta", you would find the definition plus a link to recipes that use panna cotta. Or, if you look up "dauphine," you would find the words "croquettes," "choux pastry," and "quenelles" in the definition. Don't know what they are, either? Don't worry. The definitions of these words are linked to the "dauphine" definition. It is a handy reference. Keep the Epicurious Dictionary in mind when you get those notso-common, "what-is-this?" type questions.

SPOT<u>onFNP</u> FNP Spotlights Brown County's Success

FNP (Family Nutrition Program) county programs throughout Kansas are growing, in large part, because Family and Consumer Science agents are in touch with the needs of their communities. Brown County FNP is

no exception. FACS agent, Carol Bauerle, has identified "client trust" as a vital Brown's successful FNP program.

Much of Brown County's programming is done on the United Tribes and Kickapoo Indian Reservations. Bauerle and nutrition assistant Terri Leander started with a small program three years ago using walk-by displays as teaching tools at commodity foods distribution sites. Little by little, Bauerle and Leander established a strong rapport with the Indian Tribe Organizations Now they provide nutrition education for all ages in

group and individual settings. The primary curricula are Mission Nutrition and Chef Combo for group education and EFNEP Adult Curriculum for individuals.

Leander works with a variety of

FACS agent Carol Bauerle has identified "client trust" as a vital ingredient in building ingredient in building a popularity seems to be successful FNP

audiences including WIC, Headstart, and FACE (Family and Child Education). Her mushrooming this year

as she presents Chef Combo at a daycare center. It is a hit with children as young as two years old as they learn to experience a variety of foods, including kiwi and coconut. The older children are quite involved and often bring their parents in before school or remain after school to ask questions about nutrition. As a result, even though Leander is working with the children, she is also able to help their parents.

Leander was amused and

Correction:

The modified recipe (Nov/Dec 1998) instructions for Mushroom Gravy call for mushrooms and pepper. These are optional ingredients; use to suit your own taste.

heartened that one little boy who had recently learned about the importance of hand washing commented to her after Chef Combo (alias Terri Leander) had been sick. "Chef Combo must not have washed his hands well enough!"

The Family Nutrition Program also provides training for Brown **County Development Services** which help people living in group homes to live more independently. The director of BCDS firmly believes residents have increased independence due to skills learned from FNP (e.g., food shopping, cooking, food safety, etc.).

Brown County FNP made 2806 contacts with food-stamp eligible Kansans during 1998, 25% of whom were Native American. In the words of a Brown County official, "they [Carol Bauerle and Terri Leander] really know what is needed!" Congratulations to Carol and Terri for an outstanding job.



Broccoli and Cauliflower Soup

Broccoli and Cauliflower Soup, Original

3/4 lb fresh chopped broccoli
3/4 lb fresh chopped cauliflower
1/4 cup butter
2 tbl chopped onion
2 tbl chopped celery
1/4 cup flour
4 cups chicken broth
2 cups whole milk
1/8 tsp nutmeg
1/8 tsp salt
1/8 tsp paprika

Broccoli and Cauliflower Soup, Modified

3/4 lb fresh chopped broccoli
3/4 lb fresh chopped cauliflower
1/3 cup chopped onion
1 1/2 cup chicken broth, low fat
1/4 tsp ground mace
3 cup skim milk
1 tbl cornstarch
1/2 tsp salt
1/8 tsp pepper
1/3 cup shredded Swiss cheese

Cook broccoli and cauliflower in broth until tender. Drain, reserving liquid. Put broccoli and cauliflower through a food mill, blender, or sieve. Melt butter. Saute onion and celery until tender. Add flour. Add stock that broccoli and cauliflower cooked in. Add broccoli and cauliflower. Add milk. Season with nutmeg, salt, and paprika. (Makes 10 one-cup servings).

Cook broccoli, cauliflower, and onion in the chicken broth until tender. Pour half the vegetables, along with half the bouillon, into a blender and blend until smooth. Remove and blend the remaining vegetable mixture, along with the mace. Return all of blended mixture to pan. Blend 1/2 cup of milk with cornstarch and add to vegetables. Add remaining milk, salt, and pepper, and cook until thick and hot, stirring occasionally. Blend in cheese and stir until melted. (Makes 8 one-cup servings).

Nutrition Facts

Servings Per Container

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Amount Per S	erving			
		ories fror	Eat CO	
Calories 120	Cal	ones nor	n Fat 60	
		% Daily	/ Value *	
Total Fat 7g			11%	
Saturated I	-at 4g	20%		
Cholesterol 2	0mg		6%	
Sodium 460m	g		19%	
Total Carbohy	drate 9g		3%	
Dietary Fib	er 2g			
Sugars 4g				
Protein 6g				
Vitamin A 15%	•	Vita	min C 80%	
Calcium 8%		vita	Iron 4%	
*Percent Daily Values	are based on a 2 (00 calorie di		
daily values may be h				
needs. If your calorie				
amounts recommende	ed forcalories, fats,	carbohydrate	, and fiber.	
	Calories	2,000	2,500	
Total Fat	Less than	65g	80g	
Sat Fat	Less than	20g	25g	
Cholesterol	Less than	300mg	300mg	
Sodium	Less than	2,400 mg	2,400mg	
Potassium		3,500mg	3,500mg	
Total Carbohydrate		300g	375g	
Dietary Fiber		25g	30g	
Calories per gram:				
Fat 9 •	Carbohydrate 4	•	Protein 4	

Nutrition Facts Serving Size 234g

Servings Per Container

Amount Per S	erving				
Calories 80	Cal	ories fror	n Fat 15		
		% Daily	Value *		
Total Fat 2g			3%		
Saturated	5%				
Cholesterol 5mg					
Sodium 370m	g		16%		
Total Carbohy		4%			
Dietary Fib	per 2g				
Sugars 7g					
Protein 7g					
Vitamin A 20%	Vitamin A 20% • Vitamin C 100				
Calcium 20%	•	Iron 4%			
*Percent Daily Value	s are based on a 2,0	000 calorie di	et. Your		
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Changes in F & N

We are sorry to say good-bye to a member of our team. Our editor, Rob Brannan, has moved to Massachusetts to attend graduate school. Rob's primary job has been Rapid Response Coordinator, but we have really valued his contribution to this newsletter. He is truly missed.

We would also like to remind K-State Research and Extension county faculty that the Rapid Response Center is now housed in the Department of Animal Sciences and Industry. You can still reach the center by calling the same phone number as before. Your Rapid Response needs in FACS areas will continue to be met, so we encourage you to call there with your questions on nutrition as well as food science, textiles, and housing. If you have a nutrition program-related question, please call the nutrition specialist.

Last, but not least, we want to welcome a new nutrition specialist to our team. Dr. Mary Higgins joined our faculty January 11. She is covering the area of nutrition for the elderly. We are very excited to have her on board. Welcome Mary!

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