

# Nutrition for Family Living

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## December, 2001 Topics

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## Dietary fat reduction strategies

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A study conducted by Pennsylvania State University researchers looked at the strategies used by adults over 50 to decrease the fat in their diets. Sixty-five adults who had been eating less dietary fat for at least five years completed a written survey. Most of the participants were white, highly educated, and from middle and upper socioeconomic groups.

Most of the participants had decreased their fat intake gradually, at different points during their lives and over a long period of time. Older adults in this sample had different behavior related to decreasing fat than younger adults in other studies. Older men were as interested in changing their dietary behavior as older women, something not often seen in surveys of younger adults. Two-thirds of the sample said they had tried unsuccessfully to improve their diets at least once before making changes they could maintain.

The strategies used by these older adults to decrease fat included 1) increasing summer fruits, 2) increasing vegetables and grains, 3) decreasing foods served and eaten at social occasions, 4) decreasing cooking fat, and 5) using fat-modified foods.

*Implications for educators:* Adults over 50 appear to have different strategies for eating less fat and making successful dietary changes. The results of this study of a small sample of white, highly educated adults may not generalize to all older adults. However, recommendations based on the strategies used by the older adults in this study would be good advice that is consistent with the Dietary Guidelines.

Abusabha R, Kuang-Hua H, Achterberg C. Dietary fat reduction strategies used by a group of adults aged 50 years and older. *J Am Diet Assoc.* 2001;101:1024-1030.



## Food shopping and dietary quality in low-income households

Food shopping has traditionally been included in nutrition education for low-income adults. Few studies, however, have been conducted to determine whether food shopping practices are related to dietary quality. This study looked at data from two surveys, the 1996 National Food Stamp Program Survey (FSP) and the 1998-1999 data from the EFNEP Evaluation/Reporting System to examine this question. EFNEP survey data was collected from participants as they entered the program.

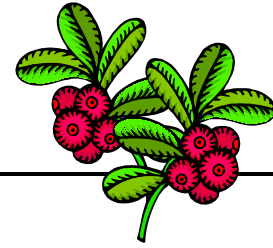
*Background.* Low-income families often face challenges such as lack of nearby supermarkets, lack of transportation to stores of their choice, lack of child care, and lack of time to do food shopping, that make food shopping skills especially important. A 1995 USDA survey found that the average market basket costs 33% more in small grocery stores, and 50% more in convenience stores than it would in supermarkets. A 1993 market research study found that women who said their household followed a strict budget were also less likely to use shopping lists, shop around for bargains, use coupons, or stock up when things were on sale – many of the practices that are recommended for saving money. The authors suggested that a strict budget may cause shoppers to limit their purchases and be more concerned with current costs than long-term savings.

*Analysis of EFNEP data.* The EFNEP survey included 10 questions designed to investigate food resource management, food safety, and nutrition practices, and a 24-hour food recall that was completed by 5159 women between age 12 and 50 in four states. Women who thought about healthy food choices and planned meals ahead were more likely to consume the RDA for vitamins A and C. Women who said they read the Nutrition Facts label consumed less fat.

*Analysis of the FSP data.* This study used a randomly selected subsample of 957 food stamp households that completed a 7-day food use record. It is important to note that this survey measured the amount of food present and consumed in the household, rather than the foods eaten by an individual. The FSP households practiced careful food shopping behaviors more often than the participants in the EFNEP survey. In all cases, a significantly higher proportion of this sample used careful shopping practices than in a national sample of households of all income levels, based on a 1998 Food Marketing Institute survey. Households that practiced at least 3 careful shopping behaviors were more likely to have met each of the 8 RDA's.

*Implications for educators.* This type of research cannot show that better shopping directly results in an improved diet. Because of the way the studies were conducted, it is impossible to conclude whether careful shopping allows people to have money for healthier foods, or whether there is some other factor responsible, or if people who want to eat healthier foods shop more carefully in order to do so. These studies do show, however, that a substantial number of low-income families use careful shopping practices, and careful shopping practices are associated with diet quality.

Hersey J et al. Food shopping practices are associated with dietary quality in low-income households. *JNE* 33:S16-26, 2001.



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## Sherry's Holiday Functional Food: Cranberries

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According to folklore, the Native Americans introduced cranberries to the Pilgrims as a food with more than one “function.” In other words, not only was it eaten as a side dish mixed with maple syrup, but it was also used as a natural dye and as a medicine in treating wounds and other ailments.

What’s in those rich burgundy-colored berries that makes them so wonderful? Cranberries contribute to our basic nutrition by providing some vitamin C and fiber when eaten as the whole berries, like in a sauce. Moreover, as a functional food, research has shown that cranberries do impart benefits beyond basic nutrition. Cranberries have one of the most complex and complete collection of *flavonoids* when compared to other fruits. Flavonoids are phytonutrients that give fruits and vegetables their antioxidant potential.

The first major class of flavonoids is *anthocyanins*. Anthocyanins make cranberries red. This class of antioxidants is found in many foods, including red wine and purple carrots. UW-Madison has developed a variety of cranberry called high-red which has enhanced levels of anthocyanins. They are currently promoting this variety with Wisconsin growers.

Another group of antioxidants found in the cranberry is the *flavonols*. The flavonols are yellow in color. They give the cranberry natural pest and insect resistance. The flavonols are also important in the unique taste of the cranberry.

Proanthocyanidins are a very important class of phytonutrients in the cranberry. These are not only important to the tart taste of cranberries which most of us like, but they may also give cranberry juice the ability to prevent urinary tract infection. Current research from Tufts University indicates that the proanthocyanidins bind to the responsible bacteria and prevent the bacteria from adhering to the bladder wall. This is technically called the “antiadhesion property.”

So what about white cranberry juice? Does it still have any health benefits? White cranberry juice is made from cranberries that have been harvested about 3 weeks prior to full ripening. Marge Leahy, nutritionist for Ocean Spray, says that the white and red cranberry juices would have similar amounts of proanthocyanidins, the compound important for urinary tract health. However, the white juice would have less anthocyanins which would reduce the overall antioxidant potential of white cranberry juice.

How much cranberry juice is necessary for these extra health benefits? Ten ounces of a cranberry juice product (27%) has been found to promote urinary tract health. Research on how much cranberry juice would be needed to improve cardiovascular health and reduce cancer risk is still being performed in animals and test tubes. However, the Cranberry Institute along with the Wisconsin Cranberry Board are funding some small- scale human studies which will give us more information on the practical significance of this preliminary information.

Keep in mind that cranberries contain a very high ratio of acids to sugars. Therefore in order to be palatable, sugar or other sweeteners must be added. Substituting a sweetened cranberry drink for a can of regular soda would have more phytonutrients (flavonoids with antioxidant potential) for about the same calories and cost. The Cable News Network (CNN) reported that there are two pounds of cranberries available this year for each person in the United States. As you enjoy them this holiday season, you will know there is more to this tiny fruit than just its perky taste.



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Adapted from:

“Cranberries: Antioxidant benefits behind the tartness,” *Environmental Nutrition*, November 2001.

The Wisconsin Cranberry Board’s quarterly meeting held November 19, 2001.

Leahy, M., Roderick, R. and Brilliant, K. The cranberry-promising health benefits, old and new. *Nutrition Today* 36: 254-265, 2001



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### To answer your question... Parkinson's Disease

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Q: Someone in my county requested a list of foods with copper, because they are avoiding copper in their diet due to Parkinson's disease. They have also asked about foods with protein because they were told those foods interfere with their medication. Can you help?

A. I don't know why a person with Parkinson's would avoid foods with copper. You should also know that I feel very uncomfortable responding to this type of information request. The person with Parkinson's should be getting this information from a physician and/or dietitian with expertise in neurology. Minerals such as copper have very specialized factors affecting bioavailability and just knowing how much is in the food isn't enough to provide a useful answer, assuming the question stems from a legitimate well-informed approach to treating Parkinson's.

There's a very helpful book on Parkinson's called "Eat Well, Stay Well with Parkinson's Disease" by Kathrynne Holden, MS, RD. It's a nutrition handbook for people with Parkinson's with easy to read references covering every area of Parkinson's. To order, call or write: Five Star Living, Inc. 604 East Pitkin, Fort Collins, CO 80524. Tel: 970-493-6532. Fax: 970-493-6538. E-mail [fivstar@webaccess.net](mailto:fivstar@webaccess.net)

There's also a lot of good information at the website of the National Parkinson Foundation, Inc -- [www.parkinson.org/](http://www.parkinson.org/).

With all these caveats -- the richest food sources of copper are shellfish, nuts, seed, organ meats, wheat bran cereals, whole-grain products, and chocolate. Of course supplements can be very high, as well as drinking water if it passes through copper pipes.

(Source: Failla, Johnson and Prohaska's chapter on copper in *Present Knowledge in Nutrition*, 8th edition., page 376.)

Regarding the protein question, this is from Kathrynne Holden's book mentioned above, as summarized on the National Parkinson's Foundation website:

"Protein in the meal is broken down in the intestine into amino acids. These amino acids must travel across the intestinal wall to get into the blood. Then they must cross the blood-brain barrier to enter the brain. Sinemet [a medication for Parkinson's disease] also must transit the intestine and the blood-brain barrier using the exact same carrier system as the amino acids.

"Most meals contain a large amount of protein, and so the amino acids use up all the "carriers." The Sinemet must wait until the carriers are free again, in order to cross over into the bloodstream. The same thing happens when Sinemet tries to get to the brain, where it does its work. Once more, amino acids clog all the "carriers" and Sinemet can't get through to the brain. Therefore, it's best to take Sinemet 30 to 60 minutes before eating a meal. This allows the Sinemet to be quickly absorbed before the food can interfere."

Susan Nitzke, 10/31/01



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### Resources: Physical Activity

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A systematic review of community interventions to increase physical activity can be found on the web at: [www.cdc.gov/mmwr/PDF/rr/rr5018.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5018.pdf)

The CDC Task Force on Community Preventive Services, the author of the report, conducted a literature review which yielded 6,238 potentially relevant titles. This number was systematically narrowed to 94 studies that were considered of good or fair quality, with sufficient evidence for drawing conclusions about what types of interventions are actually effective in getting people to be more physically active. Based on this review, the Task Force either strongly recommends or recommends six types of interventions:

- two informational approaches: community wide campaigns and point-of-decision prompts to encourage people to use the stairs.
- three behavioral and social approaches: school-based physical education, social support interventions in communities, and health behavior change programs for individuals.
- one intervention to increase physical activity by using environmental and policy approaches, such as creating or enhancing access to places for physical activity, combined with informational outreach activities.

The Task Force did not find enough evidence to recommend the following approaches:

- classroom-based health education focused on providing information, behavioral skills, and social support interventions in families – these approaches were not recommended because the studies reviewed showed inconsistent findings.
- mass media campaigns, college-age physical education and health education - these approaches were not recommended because there was an insufficient number of studies available to draw any meaningful conclusions.
- classroom-based health education focusing on reducing television and video games – this approach was not recommended because the studies reviewed did not show a link between reduced TV/video game time and increased physical activity.

The report provides additional information on the recommendations, describes how the reviews were conducted, and provides information to help apply the recommendations locally.

*What does this mean?* Choosing interventions that are well-matched to local needs and capabilities, and then carefully implementing those interventions, are vital steps for increasing physical activity. The recommendations in this report should be considered in combination with local needs and assets. One way to assess physical activity levels in your community and begin planning interventions is by establishing a task force of partners to work on the issue. Two good references for assessing and planning for your community include:

*Promoting Physical Activity: A Guide to Community Action*, from the Centers for Disease Control and Prevention. Available for \$32.00 from Human Kinetics, PO Box 5076, Champaign, IL 61825-5076 Phone: (800) 747 - 4457 or (217) 351 – 5076.

Hearts N' Parks Community Mobilization Guide, from the National Recreation and Park Association (NRPA) and the National Heart, Lung, and Blood Institute (NHLBI). Available for \$12.50 + \$5.00 S&H from NHLBI Health Information Center, PO Box 30105, Bethesda MD 20824-0105; Phone: 301-592-8573, Fax: 301-592-8563, online catalog at <http://email.nhlbihin.net/default.asp>



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### Resource: Working with diverse groups

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USDA's Food and Nutrition Information Center has a new document online entitled **Cultural and Ethnic Food and Nutrition Education Materials: A Resource List for Educators**. It is available at [www.nal.usda.gov/fnic/pubs/bibs/gen/ethnic.html](http://www.nal.usda.gov/fnic/pubs/bibs/gen/ethnic.html). You can also check out other FNIC resource lists by going to [www.nal.usda.gov/fnic/](http://www.nal.usda.gov/fnic/)

This resource list has background information and practical materials for working with diverse ethnic groups. Background materials provide information about customs and cultural influences and information on developing multicultural skills. Another section lists journal articles describing interventions with various groups. Practical resources include videos, cookbooks, and many online resources including some in languages other than English

### Resource: Nutri-Net News

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*Nutri-Net News* is a quarterly newsletter published by the Wisconsin Nutrition Education Network. The Network facilitates collaborative planning of nutrition education programs at the state and local levels. It promotes healthful and enjoyable eating so Wisconsin's low-income families receive consistent, positive, relevant, accurate and effective nutrition messages.

*Nutri-Net News* is available on the Network website at <http://www.nutrisci.wisc.edu/nutrinet/>. Contents of the October issue include:

- Working together to prevent childhood overweight
- Focus groups to freshen the 5-a-Day for Better Health program message
- Network Update on the Jump'n'Jive campaign