



# Nutrition for Family Living

Susan Nitzke, Nutrition Specialist; [susan.nitzke@ces.uwex.edu](mailto:susan.nitzke@ces.uwex.edu)  
Sherry Tanumihardjo, Nutrition Specialist; [sherry.tan@ces.uwex.edu](mailto:sherry.tan@ces.uwex.edu)  
Amy Rettammel, Outreach Specialist; [arettamm@facstaff.wisc.edu](mailto:arettamm@facstaff.wisc.edu)  
Betsy Kelley, Outreach Specialist; [kelly@nutrisci.wisc.edu](mailto:kelly@nutrisci.wisc.edu)

---

## August, 2001 Topics

Food sharing among older rural adults  
Food insufficiency and child development  
To answer your question...

### Food sharing among older rural adults

---

The July 16, 2001 *Nutrition Week* summarized an article appearing recently in *Journal of Aging Studies*. It provides some interesting insight into another aspect of food security.

In almost all societies, eating together and giving and receiving food acts as a “social glue,” reinforcing social relationships and group memberships. Like many older adults, rural elderly are often at nutritional risk due to declining health and changes in income and marital status, but this risk is made even greater by the fact that rural elderly tend to have less education and lower incomes than people in urban or suburban areas. Rural elderly also value self-sufficiency and withstanding hard times, values which may prove risky when applied to their nutritional needs.

Senior nutrition programs in rural areas have greater difficulty meeting consumers needs because of transportation difficulties, distance, and shortages of volunteers. On the other hand, for some, rural lifestyle may provide a buffer against food insecurity because of the opportunity to grow food at home, and because rural elderly often have family nearby to provide support. Food sharing among rural elderly is another aspect of this buffer.

Over the course of a year, 145 elderly subjects completed up to five in-depth interviews. The sample was a representative, non-random sample of rural elderly in North Carolina chosen to represent the range of health and economic statuses in that area and to over represent male and minority elders. The study’s purpose was to understand the factors which determine nutritional risk in this population and examined behaviors related to acquiring food, behaviors for using and preparing food, and behaviors for maintaining food security. Comments about food sharing reflected three themes:

**Food sharing reflects a sense of community.** Being able to share food makes these elders feel like active members of their community and reinforces their feeling of value or worth.

**Sharing food helps prevent hunger.** These elders believe that receiving food as a gift from neighbors makes a contribution to their food security and prevents hunger. They described neighbors who would share what they had, even when what they had was very limited, because someone had run out of food.

**Reciprocity.** While direct reciprocity isn’t expected, generalized reciprocity appears to be the rule. If someone gives a gift, the recipient attempts to give or do something in return.

While food sharing makes a contribution to some elderly people’s food security, not all elderly people receive food gifts. Some who are financially comfortable or who have very limited support systems do not receive food gifts. The amounts of food also vary tremendously, from baskets of produce which then need to be preserved, to a single serving of dessert. Sometimes the food received is not something the recipient can or will eat. The unpredictability of food gifts



## Nutrition for Family Living August, 2001

---

means that seniors can't count on gifts to prevent hunger. Also, if an elder's network is made up of people who are also food insecure, there will be little extra to give.

One of the most common food gifts is garden produce, which is an excellent choice for many reasons. Fruits and vegetables provide many of the vitamins, minerals and fiber the elderly need and which are often deficient in their diets. As energy needs decline with age, elderly people need nutrient dense foods that are not calorie dense, and garden produce is an excellent example.

Those who provide services to the elderly should try to understand food sharing so they can incorporate some of its more valuable aspects into other food security programs: food sharing is widely practiced and considered socially acceptable; it is based on existing social relationships (family, neighbors, church members); it does not mark a person as being "in need;" recipients to not ask for food gifts and therefore it is not viewed as welfare. Extension may also have a role in recommending food sharing with the elderly as a choice for gardeners faced with surplus produce.

*Nutrition Week*, July 16, 2001.

Quandt SA et al. The social and nutritional meaning of food sharing among older rural adults. *Journal of Aging Studies* 2001;15:145-162.



## Food insufficiency and child development

---

A recent article in the journal *Pediatrics* describes an analysis of NHANES III data investigating the relationships between food insufficiency and school-aged children's cognitive, academic and psychosocial development. The authors found that 6-11-year-old food-insufficient children had significantly lower math scores and were more likely to have repeated a grade, to have seen a psychologist, and to have had difficulty getting along with other children. Food-insufficient teenagers were more likely to have seen a psychologist, to have been suspended from school, and to have had difficulty getting along with others.

These results are important because they show that associations remain even after adjusting for other risk factors that are known to influence children's development, such as poverty and lack of health care. The authors comment, however, that addressing food insufficiency without addressing other risk factors may not lead to measurable improvements in children with many risk factors. On the other hand, for children with fewer risk factors, providing food alone may improve some academic and psychosocial outcomes. It is also important to note that the NHANES III sample did not include homeless children and therefore left out a significant portion of the food-insufficient children in the United States.

The authors discuss some of the possible ways that food insufficiency influences child development. Going without food may cause irritability, distractibility, or emotional changes, which can affect learning, test taking, and psychosocial behavior. Other studies have shown that food deprivation can lead to decreased motivation, selective attention, or cognitive inflexibility, which can affect learning. The absence of basic family necessities such as food or housing can cause anxiety or other emotional problems in children and their parents. Parents often deprive themselves of food before they allow their children to go hungry, and the parental stress caused by lack of food or the constant worry about not having enough food may affect children even if they are getting enough to eat.

Educators can keep this information in mind when working with children in groups, especially if some come from food insecure households. However, since the effects of food insecurity on child development are variable and the exact mechanism is unclear, educators need to treat each child as an individual and not make assumptions that all food insecure children will fall behind their peers.

Alaimo K, Olson CM and Frongillo EA. Food insufficiency and American school-aged children's cognitive, academic and psychosocial development. *Pediatrics* 2001;108:44-53.



## Nutrition for Family Living August, 2001

---

### To answer your question...

---

This month's question is one I received from a neighbor and which was conveniently answered on the FNSPEC listserv this month. I've reprinted an article which summarizes the topic quite well, written by Kathy Kolasa PhD, RD, LDN, Dept of Family Medicine, East Carolina University, Greenville, NC. Her article was published in June in *The Daily Reflector*, a local newspaper.

Q: I've heard flax seed has something in it that's good for kids with ADD, and all kinds of other things. What do you know about flax?

A: (by Kathy Kolasa) There is a continuing interest by both researchers and consumers in the value of eating flax because it is a source of omega-3 fatty acids, nutritious protein, lignans and dietary fiber. **Of course everyone involved in the production and sale of flax is trying to get us excited about eating more flax and sometimes they overstate the evidence.** (emphasis added) I will comment on each of the possible health benefits, but first, for those of you who have never tried flaxseed, it is the brown seed of the flax plant. It is slightly larger than sesame seed and varies in color from reddish brown to light brown. Most of the flax we get comes from Canada. I, like many of you, grew up thinking of flax as a textile not a food.

The American Heart Association focused new attention on omega-3 fatty acids last fall when it said there was growing research showing beneficial effects from eating foods rich in omega 3 fatty acids. AHA recommended Americans who wished to reduce their risks for heart disease eat two fatty fish meals/wk (e.g. salmon, tuna, catfish); use canola, soy, or flaxseed oil; and eat nuts.\* There are now also eggs that have high levels of DHA, although they are quite expensive and I am not routinely recommending them. The chickens have been fed a diet high in omega-3s. You should know that the omega-3 fatty acids found in flax are not the same as in fish. It's alpha-linolenic acid (ALA) in flax. It takes the body longer to use this fatty acid than from fish. ALA has to be converted in the body to eicopentaenoic acid (EPA) or docosahexaenoic acid (DHA). Not all scientists believe we have enough information to say this works like fish oils. Farmers and the flax commodity board will brag that flaxseed is a far better source of ALA than soy or canola. While the AHA encourages us to get these omega-3 fatty acids there is no established amount, yet. Some researchers think the requirement is about 200 mg/day of DHA. You can get that in about 1 tablespoon of unground flaxseed. Remember to chew flaxseed well or they will pass through undigested. Also, remember that flaxseed has a lot of dietary fiber packed in that small space, so make sure you are getting 8-10 glasses of fluid each day. Omega-3 supplements are sold, but all of the health organizations still encourage the consumption of the foods rather than the pills. This is especially true for anyone who is taking other blood thinning medicines, such as coumadin, daily aspirin or ginkgo biloba, since omega-3s discourage blood clotting.

The protein quality of flaxseed is excellent and is similar to soy protein. While most Americans don't need more protein, people choosing to eat a more vegetarian-like diet may enjoy using flaxseed in their foods.

The use of flax to prevent hormone related cancers like breast cancer and prostate cancer has been less studied. It is the lignan content of the flax that is of interest here. The interest in soy for cancer prevention is similar. But the lignan or phytoestrogen content of flax is higher than soy. Like soy, there is concern that the studies of the effects of long-term supplementation with foods that alter hormone levels have not been done. So, there are health care providers that discourage



## Nutrition for Family Living August, 2001

---

those at risk for hormone dependent cancers from taking large quantities of soy or flaxseed. Large quantities have been defined as 3 tablespoons or more per day.

There are more claims than research on the role of flaxseed in preventing or treating inflammatory diseases such as lupus and rheumatoid arthritis. I am not aware of any harm in eating flax for these purposes but I wouldn't want to make any promises for improvement.

The dietary fiber of flaxseed provides health benefits as well. Insoluble fiber prevents constipation. Soluble fiber helps maintain blood glucose levels and lowers blood cholesterol levels.

I have already said we don't know how much flaxseed is needed. I usually suggest using amounts that researchers are studying. The human studies have been using 15-50 grams flaxseed per day. You will find the following nutrition in 100 grams of whole flaxseed (3½ ounces): 450 calories, 41 grams fat, and 24 grams omega-3 fatty acid.

Flaxseed can be added to baked goods in whole seed or flour/meal form. The seeds can be purchased whole or in ground form. The seeds can be ground at home in a coffee bean grinder or food processor. Whole seeds can be made more digestible by slightly grinding enough to just crack the hull. Milled flaxseed can be used in place of oil or shortening in recipes in a 3:1 ratio (3T flaxseed replaces 1T oil) and results in more rapid browning. Flaxseed can replace eggs in some recipes. 1T milled flaxseed + 3T water replaces 1 egg and results in a gummier, chewier, decreased volume product. Flaxseed is available at health food stores and some supermarkets. Whole flaxseed may be stored at room temperature for up to one year. Milled flaxseed should be refrigerated in an airtight, opaque container for up to 30 days.

**\* Note from Susan Nitzke: The Dietary Guidelines for Americans do not include advice to increase intake of flax or other non-fish sources of omega-3 fatty acids. This is an evolving field of study and we're not ready to suggest WNEP lessons promoting flax – at least not yet!**