



Nutrition for Family Living

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July, 2009 Topics

Many Young Adults are Missing Out on Milk and Dairy

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Many Young Adults are Missing Out on Milk and Dairy

By Susan Nitzke

Nicole Larson and others at the University of Minnesota School of Public Health used data from their 5-year study of Project EAT to follow changes in diet and lifestyle factors as adolescents transition to adulthood. The study was based on data from 1521 ethnically and socioeconomically diverse young adults from Minnesota who were teens (average 15.9 years old) at the beginning of the study. Project EAT surveys included food/beverage intakes and behavioral factors related to the Social Cognitive Theory.

The study reveals that during the transition from adolescence to young adulthood, young women participating in Project EAT reduced their daily calcium intakes by an average of 153 milligrams and young men's calcium intakes declined an average of 194 milligrams. As young adults, two-thirds of the females and more than half of the males had calcium intakes that were lower than current recommendations (DRIs).

Availability of milk at meals when they were teens was positively associated with calcium intake trends for both males and females. The females who had higher concerns about health and stronger self-efficacy (confidence) for healthful eating tended to have higher calcium intakes at the end of the study. As young adults, higher intakes of calcium among females were associated with the following factors from their teen years: spending less time watching TV, having more positive taste preferences for milk, and more frequent family meals. Perceived barriers to healthful eating, snack frequency, fast food frequency, and soft drink intake were associated with lower calcium intakes in females.

For the males, positive taste preference for milk, using healthful weight control behaviors, and peer support for healthful eating were associated with higher calcium intakes at the end of the study. In addition, males' calcium intakes tended to be higher at the end of the study if they had more concerns about health and ate breakfast more frequently when they were teens. Their perceived barriers to healthful eating and fast-food frequency were also associated with lower calcium intakes at the end of the study among males.

Implications for Extension Educators. The article makes the following suggestions for nutrition educators, based on these findings: families of adolescents should be encouraged to serve milk at meals. Educators are advised to build on adolescent girls' concerns for healthful eating, develop their confidence in healthful eating skills, and reduce their exposure to TV advertisements. Education programs for adolescent males should emphasize opportunities to taste calcium-rich food, promote healthful weight management behaviors, and support healthful eating behaviors among peers.

Reference: Larson NI, Neumark-Sztainer D, Harnack L, Wall M, Story M, Eisenberg ME. Calcium and dairy intake: Longitudinal trends during the transition to young adulthood and correlates of calcium intake. *J Nutr Educ Behav.* 2009;41:254-260.



Acculturation is Associated with Low Levels of Fruit and Vegetable Intake at-Home in Hispanic Children in San Antonio, TX

By Teresa Curtis

Researchers from the Baylor College of Medicine, the University of Texas School of Public Health, and the University of South Carolina studied relationships between food insecurity, acculturation, and fruit and vegetable intake at-home among Hispanic children ages 5 to 12 years. Parents of children attending three elementary schools in San Antonio were recruited and enrolled. Participating families were ethnically diverse and had limited incomes. A self-administered survey tool, which was given in both English and Spanish, collected information about fruit and vegetable intake, demographics, acculturation, and food security. In addition to information about the child's age, sex, and ethnicity, the demographic questionnaire also collected data on parental employment and income. "What is the main language spoken at home?" was the one question used to assess participants' level of acculturation. The response "Spanish" indicated a low level of acculturation and the response "English" indicated a moderate to high level of acculturation.

Fruit and vegetable intake was assessed using seven questions from the Block screening form. Respondents reported their intake of fruit juice (fresh, frozen or canned); fruit (fresh or canned); vegetable juice; green salad; potatoes (any kind, including mashed); vegetable soup or stew; and other vegetables. Possible responses to these questions were "fewer than once per week", "once per week", "two to three times per week", "four to six times per week", "once per day", or "two or more times per day". The average fruit and vegetable intake at home was calculated by dividing the total servings of fruits and vegetables per week by seven and was used as a continuous variable.

Fruit and Vegetable Intake and Acculturation

Results show that Hispanic children overall, have a very low intake of fruits and vegetables at home compared to recommendations found in the Dietary Guidelines for Americans. Children from less acculturated families consumed significantly more fruits and vegetables (1.26 servings/day) than children from more-acculturated families (0.89 servings/day). Results suggest that the traditional Hispanic or Latino diet, which is more common among those who are less-acculturated, may be protective against less-healthy dietary patterns. Although the connection remains unclear, strong family ties and social support networks of less-acculturated families may support positive dietary practices.

Fruit and Vegetable Intake and Food Security

Two previously validated questions were used to measure food insecurity: "Do you run out of food before the end of the month because you can't afford to buy more" and "Do you worry that you will run out of food before you can afford to buy more?" "Always" and "sometimes" responses denoted food insecurity and a "never" response implied food security. There appears to be a direct relationship between fruit and vegetable consumption and levels of food security; total fruit and vegetable intake was significantly lower among the food-insecure group compared to the food-secure group. Food-secure families had higher intakes of fresh fruits, canned fruits, and vegetable juice than children from food-insecure families. The limited number of studies that measure the impact of food insecurity on diet quality suggest that higher levels of food insecurity often result in children consuming nutritionally poor foods, which may contribute to childhood obesity.

Study Limitations and Implications

There are several limitations to this study including its cross-sectional design (single point in time); lack of validation of dietary intake questions for use with Hispanic audiences; and the narrow perception of the acculturation process. Also, the parents who agreed to be in the study may not have been typical of the broader Hispanic population in the U.S. Despite these limitations, the results from this study complement previous findings that show high levels of acculturation and food insecurity are associated with lower levels of fruit and vegetable intake among the low-income Hispanic population.



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Implications for Extension Educators: The results of this study emphasize the need for culturally appropriate nutrition education that addresses prevalent issues of low-income Hispanic families. It is important to balance nutrition education that honors traditional eating patterns with the families' needs for practical resources to increase their food security, such as referrals to food pantries or supplemental food programs.

References:

Dave JA, Evans AE, Saunders RP, Watkins KW, Pfeiffer KA. Associations among food insecurity, acculturation, demographic factors, and fruit and vegetable intake at home in Hispanic children. *J Am Diet Assoc.* 2009;109(4):697-701.

Escamilla-Perez, R. Dietary quality among Latinos: Is acculturation making us sick? *J Am Diet Assoc* 2009;109(6):988-91.

Educational Resources:

Sisters in Health, Division of Nutritional Sciences, Cornell University, Copyright 1999. Adapted and translated with permission by University of Wisconsin Cooperative Extension, 2005. Regina Gallero, translator.



Weight Gain in Pregnancy

By Susan Nitzke

In May of 2009, the Institute of Medicine and the National Research Council updated their 1990 recommendations for how much weight women are recommended to gain during pregnancy. Following are some key points from the new report:

- Entering pregnancy with a normal body mass index (BMI) as well as gaining within the recommended ranges during gestation are the best ways to minimize risks. Therefore, the report calls for increased diet and exercise counseling and programs to help women attain a normal BMI.
- Healthy American women at a normal weight for their height (BMI of 18.5 to 24.9) should gain 25 to 35 pounds during pregnancy, the new guidelines state. Underweight women (BMI less than 18.5) should gain more, 28 to 40 pounds, and overweight women (BMI of 25 to 29.9) should gain less, 15 to 25 pounds. The report also specifies a new range for obese women (BMI greater than 30) and limits their recommended gain to between 11 and 20 pounds.
- The above weight gains correspond to gaining about 1 pound a week during the 2nd and 3rd trimesters for underweight and normal weight women, 0.6 pounds a week for overweight women, and 0.5 pounds a week for obese women. This assumes they will have gained a typical amount (between 1.1 and 4.4 pounds) in the first trimester.
- The report includes provisional guidelines for mothers expecting twins. In this circumstance, normal weight women are advised to gain between 37 and 54 pounds, overweight women would be advised to gain between 31 and 50 pounds, and the recommended weight gain for obese women expecting twins would be 25 to 42 pounds at term.
- The committee pointed out that much more research is needed to understand the consequences of gaining too much or too little weight during pregnancy. Studies that have been done so far suggest that women who gain excess weight during pregnancy have greater chances of retaining extra pounds after birth or needing a Caesarean section and that their babies have increased risks of being born larger than normal with extra fat. Gaining too little weight during pregnancy increases the baby's risk for being born smaller than normal and preterm delivery.
- Since the majority of American women gain outside of these recommended ranges (mostly too much), the report calls for increased diet and exercise counseling and programs to help women gain within these guidelines. The report also calls for special attention to low-income and minority women who are more likely to be overweight or obese, consume diets of poor nutritional quality, and get less exercise before pregnancy.

Implications for Extension Educators: Although Extension Nutrition Educators do *not* issue recommendations for weight gain during pregnancy or provide specialized counseling in nutrition and exercise, Extension nutrition education can help women follow dietary advice from WIC dietitians and other medical/nutrition professionals. Knowledge and skills such as planning affordable and nutritious meals, buying nutrient-rich foods and beverages within a limited budget, and label reading may be especially important for women who are overweight or obese and either pregnant or planning to become pregnant.

Additional information on the report is available at
[HTTP://WWW.IOM.EDU/PREGNANCYWEIGHTGAIN](http://www.iom.edu/pregnancyweightgain).

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