



A newsletter by Dairy Management, Inc.<sup>™</sup> to provide the dairy industry with current research on nutrition and dairy foods

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August 2010

Vol. 23, No. 8

## ***META-ANALYSIS LOOKS AT CALCIUM SUPPLEMENTATION AND RISK OF HEART ATTACK AND OTHER CVD EVENTS***

Researchers in New Zealand and the U.S. conducted a pooled analysis of ~12,000 participants in 11 randomized controlled trials to investigate whether calcium supplementation (without vitamin D supplementation) increases the risk of cardiovascular events such as heart attack, stroke, or sudden death. In the studies chosen for analysis, participants (>40 years) were supplemented with at least 500 mg of calcium per day and the studies were conducted for at least one year. Five studies reported individual patient data on cardiovascular outcomes, while all 11 studies reported this data at the trial level.

Analysis of the patient-level data showed:

- Overall, the risk of incident and recurrent myocardial infarction [heart attack] in those allocated to calcium increased significantly by 32%.
- Calcium treatment was only associated with increased risk of heart attack in those whose dietary intake was above the median of 805 mg/day, and did not differ by age, sex, or type of supplement.
- In total, significantly more heart attacks, strokes, and sudden deaths occurred in people allocated to calcium than in those receiving a placebo.

Analysis of data at the trial level showed a significant 27% increase in heart attack among those receiving calcium supplementation, but no increased risk of stroke or sudden death. Although this study did not investigate mechanisms, the authors speculate that calcium supplements might increase heart attack risk by modestly increasing blood calcium levels, by increasing coagulation or altering vascular flow. They say, "Ingestion of equivalent doses of calcium from dairy products has a much smaller effect than calcium supplements on serum calcium levels, which might account for the absence of a detrimental vascular effect of dietary calcium intake in the observational studies reviewed." In light of these findings, the authors say the role of calcium supplements in the management of osteoporosis should be reassessed. [Bolland MJ et al., *BMJ*, published online July 29, 2010]

## ***STUDY ASSOCIATES SATURATED FAT WITH A LOWER RISK OF DYING FROM STROKE IN JAPANESE ADULTS***

This large, community-based prospective cohort study of 58,453 men and women (40-79 years) enrolled in the Japan Collaborative Cohort Study for Evaluation of Cancer Risk (JACC Study),

tested the hypothesis that saturated fatty acid (SFA) intake is associated with the risk of cardiovascular disease mortality in Japanese whose average SFA intake is low. Participants were followed for 14 years and associations between SFA intake and mortality from stroke (intraparenchymal and subarachnoid hemorrhages and ischemic stroke) and heart diseases (ischemic heart disease, cardiac arrest, and heart failure) were examined.

Results:

- The highest compared to the lowest quintiles of SFA intake were associated with a significant 31% lower risk for total stroke, a 52% lower risk for intraparenchymal hemorrhage, and a 42% lower risk for ischemic stroke, after adjustment for age, sex, and cardiovascular disease risk factors.
- No associations were observed between SFA intake and mortality from subarachnoid hemorrhage and heart disease.
- Adjustment for intake of animal protein did not change these associations.

The authors say the median SFA intake in this population was very low (9.4 g/day) in comparison to Western countries. They speculate that SFA may play different roles in large vs. small intracranial blood vessels – and that in some vessels, a very low blood cholesterol level may lead to increased fragility of the vascular wall. They caution against generalizing their results to other populations, though they mention previous studies have shown inverse associations between SFA intake and intraparenchymal hemorrhage in Japanese and Americans. [Yamagishi K, et al., *Am J Clin Nutr*, published online August 4, 2010]

## ***DRINKING CALORIC BEVERAGES IS ASSOCIATED WITH CARDIOMETABOLIC RISK***

This study used data from a 20-year prospective Coronary Artery Risk Development in Young Adults (CARDIA) cohort to examine the relationship between consumption of lower-fat (skim and  $\leq 2\%$ ) and whole-fat milk ( $\geq 3\%$ ) consumed as a beverage, fruit juice, and sugar-sweetened beverages (SSBs) and cardiometabolic risk factors. The researchers used data from years 0, 7, and 20 from more than 3,500 participants who were 18-30 years at baseline. Results showed that over 20 years, there was a “consistent increase in per capita calories for SSBs, adjusted for age and sex, whereas per capita intake of whole-fat and low-fat milk and fruit juice declined.”

- A higher baseline consumption of SSBs was associated with a significant increase in the risk of high waist circumference, high triglycerides, high LDL-cholesterol, and hypertension.
- Higher whole-fat milk and fruit juice consumption was associated with significantly lower risks of high triglycerides (-9%) and hypertension (-11%).
- “Consumption of low-fat milk was not statistically significantly related to any incident cardiometabolic risk factor or to the metabolic syndrome.”
- Each 100-calorie increase in baseline consumption of SSBs or whole-fat milk was associated with a higher risk of having a high waist circumference, low HDL-cholesterol (SSBs), and a high LDL-cholesterol at 20 years.

The authors say this study “is one of the first to examine long-term intake of caloric beverages, including both whole- and low-fat milk intake.” They observed “consistent evidence of an association between consumption of SSBs and incident cardiometabolic risk.” [Duffey KJ, et al., *Am J Clin Nutr*, published online August 11, 2010]

## STUDY LOOKS AT THE EFFECTS OF BUTTER AND MARGARINES ON MARKERS OF CVD RISK

This randomized, single-blind study of 53 free-living subjects (average age 54 years) with metabolic syndrome, examined the effects of daily servings of butter, no-*trans*-fat margarine, and plant sterol margarine in recommended amounts on markers for cardiovascular disease (CVD) risk including plasma lipids, apolipoproteins, and biomarkers of inflammation and endothelial dysfunction. Participants were asked to continue their regular diet and maintain their regular activity level during the 5 weeks of the study. Those randomly assigned to the butter group received portioned packs of 18 g of butter (8.4 g saturated fat) to use daily; those assigned to the no-*trans*-fat margarine group were given 36 g/day, and those assigned to the plant sterol margarine group (2.4 g of plant sterols) were given 30 g/day. The amounts were chosen to equalize the amount of total fat and calories provided by the spreads.

### Result highlights:

- There were no differences between groups in total cholesterol, HDL cholesterol, small dense LDL and non-HDL cholesterol, triglyceride or LDL/HDL ratios. Neither were there any differences between groups in the assessed markers of inflammation and endothelial dysfunction.
- Those using the plant sterol margarine had a marginally significant reduction of 11.4% in LDL cholesterol and a significant reduction in Apo-B levels (-10.5%) and in the ratio of Apo-B/Apo-A-I (-11%) compared to baseline and the changes in Apo-B were also significant compared to the other groups. The authors explain that “the ratio of Apo-B/Apo-A-I is an important risk marker for CVD.”
- Those in the no-*trans*-fat margarine group had a significant effect on HDL metabolism, specifically a reduction in the rate at which triglycerides and free cholesterol were transferred to HDL. However, “no significant changes in lipid transfer rates were observed for the butter or plant sterol margarine groups.”

In conclusion the authors say, “In this study plant sterol margarine reduced Apo-B and Apo-B/Apo-A-I ratios and no-*trans*-fat margarine altered the functionality of HDL particles. Furthermore, butter and no-*trans*-fat margarine consumption, within recommended amounts, did not unfavorably change plasma lipids and inflammatory markers in free-living metabolic syndrome subjects.” The amount of saturated fat in the butter provided 5% of calories in a 1500 kcal diet – well within the 7% of calories recommended for patients with metabolic risk factors. [Gagliardi ACM, et al., *European Journal of Clinical Nutrition*, published online July 21, 2010]

## FORTIFIED MILK FOUND TO IMPROVE GROWTH AND IRON STATUS OF YOUNG CHILDREN IN INDIA

This one-year community-based randomized trial among 633 Indian children 1-4 years evaluated the effect of milk fortified with several micronutrients (including zinc and iron) on growth, anemia and iron status. The children were randomly assigned to receive 3 servings/day of fortified milk or unfortified control milk for one year. At baseline many (~2/3) of the enrolled children were moderately anemic, about half had iron deficiency anemia, and almost 68% were experiencing faltering growth. “Compared to children consuming the control milk, children consuming micronutrient fortified milk showed significant improvement in weight gain and height gain,” the authors report. Average hemoglobin and serum ferritin levels (measures of iron status) also improved significantly. In addition, “Children in the micronutrient fortified milk group had 88% lower risk of iron deficiency anemia.” The authors

say that fortified milk in this study had a larger impact on iron status markers than reported in iron fortification trials. They attribute the larger impact to the presence and availability of other nutrients such as vitamin A, riboflavin, vitamin B12, folic acid, and vitamin C (improves the bioavailability of iron). This study provides evidence, say the authors, that milk is a feasible option for delivering critical micronutrients, especially iron and zinc, to malnourished children. [Sazawal S, et al., *PLoS One*, 5(8):e12167, 2010]

## ***ADA POSITION ON LOCAL SUPPORT FOR NUTRITION INTEGRITY IN SCHOOLS***

This position statement of the American Dietetic Association (ADA) supports the idea that “schools and communities have a shared responsibility to provide students with access to high-quality, affordable, nutritious foods and beverages;” that “school-based nutrition services . . . are an integral part of the total education program;” and that “strong wellness policies . . . enhance nutrition integrity and help students to develop lifelong healthy behaviors.” The paper defines nutrition integrity as “a guaranteed level of performance that assures that all foods and beverages available in schools for children are consistent with the Dietary Guidelines for Americans, and when combined with nutrition education, physical activity, and a healthful school environment, contributes to enhanced learning and development of lifelong, healthful eating habits.” Tables list components of nutrition integrity along with indicators that a particular component is being implemented within a school. The paper includes sections on school nutrition policy statements, the school breakfast program, ways to improve the quality, variety, and acceptability of school meals, and the role of the registered dietitian and dietetic technician in this process. [Position of the American Dietetic Association: Local Support for Nutrition Integrity in Schools, *J Am Diet Ass*, 110(8): 1244-1254, 2010; <http://www.eatright.org/About/Content.aspx?id=8369>]

## ***REVIEW OF THE EFFECT OF NUTRITION ON BLOOD PRESSURE***

This comprehensive review paper could be a valuable reference for practitioners seeking dietary approaches to help achieve a healthy blood pressure in their clients. The paper asserts that excessive energy intake/obesity are major causes of hypertension, and discusses the mechanisms by which increased body fat causes high blood pressure. It reviews the research on individual nutrients and their beneficial or adverse effects on blood pressure. For example, “High intakes of potassium, polyunsaturated fatty acids, and protein, along with exercise and possibly vitamin D, may reduce blood pressure,” while “High sodium chloride intake strongly predisposes to hypertension” and “Increased alcohol consumption may acutely elevate blood pressure.” The paper also indicates that the Dietary Approaches to Stop Hypertension (DASH) dietary pattern, which is high in fruits, vegetables, and low-fat dairy products, is an example of a diet that appears “to lower blood pressure in people with prehypertension or mild hypertension or prevent the development of hypertension.” Another important section for the practitioner discusses the long-term adherence and blood pressure response to health-enhancing lifestyles, and indicates that methods for obtaining long-term adherence “are still being investigated.” [Savica V, Bellinghieri G, and Kopple JD, *Annu Rev Nutr*, 30: 365-401, 2010]

## **DIETARY PATTERNS ASSOCIATED WITH LOW FAT MASS AND HIGH BONE MASS IN CHILDREN**

Researchers in Ohio aimed to identify dietary patterns that were associated with the simultaneous development of both low fat mass and high bone mass in children who were roughly between the ages of 4 and 8 years. A statistical technique (reduced-rank regression) was used to identify dietary patterns related to both variables; two dietary patterns were identified for each of the four study years. For each pattern, a dietary pattern score was calculated for each child. Fat mass and bone mass were also assessed each year in the 325 child participants. Results showed that “A dietary pattern characterized by a high intake of dark-green and deep-yellow vegetables was related to low fat mass and high bone mass; high processed-meat (significant protein source for these children) intake was related to high bone mass; and high fried-food intake was related to high fat mass.” The authors say “the biological process by which dark-green and deep-yellow vegetables affect bone mass remains unclear, but may be related to their alkalizing minerals such as potassium.” Although these findings are only hypothesis generating, the authors say, “the foods that consistently characterized the dietary patterns across all years can potentially inform further studies of target foods that may promote healthy fat and bone mass gain in young children.” [Wosje KS, et al., *Am J Clin Nutr*, 92: 294-303, 2010]

## **CHANGES IN CHILDHOOD OBESITY AND OVERWEIGHT IS REPORTED BY STATE**

This paper used data from the 2003 and 2007 National Survey of Children’s Health to examine changes in state-specific obesity and overweight prevalence among U.S. children and adolescents. The data was compiled on a total of 46,707 children and 44,101 children aged 10 to 17 years in 2003 and 2007, respectively. “In 2007,” the authors report, “16.4% of US children were obese and 31.6% were overweight.” Notably, the prevalence of obesity varied from state to state, with Mississippi having the highest prevalence (21.9%) and Oregon the lowest (9.6%). “Between 2003 and 2007,” the paper reports, “obesity prevalence increased by 10% for all US children and by 18% for female children.” However, it declined by 32% for children in Oregon, but doubled among girls in Arizona and Kansas. The researchers also examined to what extent sociodemographic, behavioral, and neighborhood characteristics explained the variability between geographic locations. They found that prevalence rates decreased by 42% and 45% after adjusting for individual and neighborhood-level covariates, respectively. The authors conclude that prevention programs aimed at reducing disparities in childhood obesity should aim to reduce physical inactivity by limiting television viewing and recreational screen time, but should also implement social policy measures “aimed at improving the broader social and physical environments that create obesogenic conditions that put children at risk for poor diet, physical inactivity, and other sedentary activities.” [Singh GK, Kogan MD, and van Dyck PC, *Arch Pediatr Adolesc Med*, 164(7): 598-607]

## **THE ROLE OF PROTEIN IN THE TREATMENT OF OBESITY**

Experts from the University of Chicago and the University of Illinois at Urbana-Champaign collaborate on this review that helps the reader “understand the potential benefits of increased dietary protein during weight loss and the importance of distribution of high-quality protein at each meal.” The authors explain physiologically what happens when a person follows a low-calorie diet to lose weight, and why they frequently regain the weight so quickly. Rapid weight loss induces loss of muscle mass – metabolically active tissue – reducing the ability to burn

calories and keep the weight off. The weight regained “usually represents a greater percentage of body fat than before dieting,” they say. The authors note that the key to preserving lean tissue “is maintaining protein quantity and quality at individual meals.” They present science to support their contention that “Diets with higher protein and reduced carbohydrates are beneficial for weight reduction because they improve body composition by reducing loss of lean tissue.” Specifically, “Higher protein diets rich in [the amino acid] leucine are the key to stimulating protein synthesis in skeletal muscle and staving off muscle loss.” The authors estimate that the leucine requirement may be nearly 9 g/day to optimize muscle protein synthesis pathways. This amount “is nearly double the leucine content of current American dietary protein intakes.” According to these researchers, humans need to consume at least 25-30 g of protein containing a minimum of 2.5 g leucine per meal to stimulate muscle protein synthesis. “The leucine content of a protein is a critical factor defining the quality of the source. For example, “milk proteins contain approximately 10% leucine by weight, whereas wheat proteins have only 6.8%.” Therefore, a higher quantity of plant-based proteins are needed to reach the leucine threshold. The current dietary guidelines present protein needs as a percentage of energy in relationship to carbohydrates and fats, but “fail to recognize the importance of reaching the leucine threshold at each meal,” they say. Contrary to current eating patterns in the U.S., people need to have a high-protein meal as early in the day as possible; “thus breakfast becomes the most important meal of the day.” Additional benefits of higher-protein diets, they say, are increased thermogenesis (body’s production of heat; an indicator of caloric expenditure), enhanced satiety, and stabilizing blood sugar. The authors conclude, “Application of these principles will require that individuals modify their eating patterns to include high-quality proteins at breakfast and lunch. Doing so will increase the likelihood of success in long-term weight loss.” [Devkota S and Layman DK, *Curr Opin Clin Nutr Metab Care*, 13: 403-407, 2010]

## ***In Brief...***

### **EFSA rejects soy protein-cholesterol health claim**

The Panel on Dietetic Products, Nutrition and Allergies (NDA) of the European Food Safety Authority (EFSA) in Parma, Italy returned a negative opinion to a petitioned health claim linking soy protein to reduced LDL-cholesterol submitted by the Soya Protein Association (SPA), the European Vegetable Protein Federation (EUVEPRO), and the European Natural Soyfood Manufacturers Association (ENSA). The wording of the health claim by the applicant is: “Soy protein has been shown to lower/reduce blood cholesterol: blood cholesterol lowering may reduce the risk of (coronary) heart disease.” After weighing the evidence, the Panel concluded that “a cause and effect relationship has not been established between the consumption of soy protein and the reduction of LDL-cholesterol concentrations.” Their opinion was not swayed by the applicant’s list of authorizing bodies in other countries that had approved health claims on soy protein products and the reduction of blood cholesterol (i.e., UK Joint Health Claims Initiative (JHCI), US Food and Drug Administration (FDA), Japan Food for Specified Health Uses (FOSHU), Ministry of Health, Labor and Welfare). [Scientific Opinion of the Panel on Dietetic Products, Nutrition and Allergies, *EFSA Journal*, 8(7): 1688, 2010][Also see press release: [www.nutraingredients.com/regulation/EFSA-rejects-soy-protein-cholesterol-health-claim](http://www.nutraingredients.com/regulation/EFSA-rejects-soy-protein-cholesterol-health-claim)]

### **Intervention improves vitamin D levels and one aspect of muscle function in UK adolescent girls with low vitamin D status.**

This one-year community-based, double-blind, randomized controlled trial in 69 adolescent girls (12-14 years) with low vitamin D status, evaluated the effect of vitamin D supplementation

on the musculoskeletal system. The participants attended an inner-city, multiethnic, all-girls school in the UK ((88% South Asian, 7% Black, 1% Middle Eastern, 3% mixed race), and had blood levels of vitamin D [25(OH)D] less than 37.5 nmol/liter at study entry, without clinical signs of deficiency. The girls were randomly assigned to receive either four doses of 150,000 IU vitamin D<sub>2</sub> (ergocalciferol) or placebo over a period of one year. At one year, vitamin D status improved in the intervention group when compared to the placebo group (56 nmol/liter vs. 15.8 nmol/liter). Results showed, "There were no effects of supplementation on bone [mineral accretion, bone geometry or strength]; however, for muscle function, efficiency of movement improved in the vitamin D-treated group." This was demonstrated by greater increases in jump velocity in girls with the lowest baseline vitamin D concentrations. The researchers did not have access to or report calcium intake of participants. They say the lack of effect of vitamin D supplementation on bone or other aspects of muscle function suggest that earlier monitoring and intervention are needed in girls before peak bone mineral accretion takes place. [Ward KA, et al., *J Clin Endocrin Metab*, published online July 14, 2010]

### **Calcium supplementation in pregnant West African women with low calcium intakes may not benefit bone health**

This double-blind, placebo-controlled trial in pregnant women in The Gambia, West Africa, with very low calcium intakes (~350 mg/day) investigated whether a greater intake of calcium in pregnancy has a beneficial effect on maternal bone mineral status at 2, 13, and 52 weeks postpartum and on maternal biochemistry at 13 weeks postpartum. The women were randomly assigned to receive 1500 mg/day of calcium carbonate or a placebo from 20 weeks of gestation until the birth of their baby; they did not take the supplements during lactation. Contrary to expectations, "Women who received the calcium supplement in pregnancy had significantly lower bone mineral content (BMC), bone area (BA), and bone mineral density (BMD) at the hip throughout 12 months of lactation." The calcium supplemented women also had biochemical changes consistent with mobilization of bone from the skeleton. The authors say the supplement may have altered the women's natural ability to conserve calcium (increased absorption and decreased urinary excretion). These results, along with previous findings in these women that calcium supplementation did not benefit fetal and infant growth and bone mineral development, the authors caution "against the need for calcium supplements in pregnancy unless there is evidence of a benefit for maternal blood pressure and reproductive health." [Jarjou MA, et al., *Am J Clin Nutr*, 92: 450-457, 2010]

### **Review addresses vitamin D inadequacy in pregnancy**

This review article discusses growing concern over the "widespread global prevalence of hypovitaminosis D during pregnancy and its implications of undesirable health outcomes" for the mother, the developing fetus, and for the postnatal growth of the child. This review summarizes vitamin D metabolism during pregnancy, noting that the major source of vitamin D for the developing fetus is the transfer of 25(OH)D through the mother's placenta; it examines the adverse health outcomes of vitamin D insufficiency for the mother and offspring; and discusses risk factors and prevalence for insufficiency. Although there is disagreement about the optimal circulating level of vitamin D needed throughout pregnancy, say the authors, "it is evident that prior levels used to establish intake recommendations were too conservative." Based on existing evidence, the authors say a daily dose of vitamin D needed to ensure vitamin D adequacy in a majority of pregnant women "would exceed 1,000 IU/day." It is likely, they say that pregnant women at highest risk for vitamin D insufficiency (pre-pregnant obesity, darker skin pigmentation, winter/spring due date) may require even higher dose supplementation. [Dror DK and Allen LH, *Nutrition Reviews*, 68(8): 465-477, 2010]

### **Total fat intake is not associated with cognitive decline in older women at risk for CVD**

This large prospective study of more than 2,500 older women ( $\geq 65$  years) at high risk for cardiovascular disease (CVD) “observed no overall association between dietary fat intake and cognitive decline over 5-years follow-up.” Neither total fat intake nor different types of fat were related to cognitive decline as indicated by a composite score of 5 tests administered by a telephone survey of general cognition, memory and category fluency. The tests were administered four times in over 5 years. However, among the oldest women (73-91 years) higher intakes of monounsaturated and polyunsaturated fat were related to less cognitive decline, the equivalent to delaying aging by 4-6 years. The authors suggest caution in interpreting these results, because “older participants have a faster rate of cognitive decline than younger participants,” so differences in rates are easier to detect. They say this “trend toward a possible beneficial effect of unsaturated fats for preserving cognitive function in oldest women warrants further study.” [Vercambre M-N, Grodstein F, and Kang JH, *European Journal of Clinical Nutrition*, published online July 21, 2010]

### **Dairy products in the Chinese-American family food system**

“This theory-based qualitative study explored how [20] first-generation Chinese American couples with children view dairy products, how they use them in their family food system, and how these uses influence their dietary behavior or intake.” Results showed that lactose intolerance was not the major barrier to dairy food intake, and taste, texture, and use of additives/hormones had a more important influence on dairy choice. The father’s view of dairy products and his preference for Chinese-based dinners had the greatest influence on foods eaten at dinner; breakfast, lunch, or snacks were more flexible and could include dairy products. The authors say, “This sample of Chinese-American parents was not aware of the importance of calcium to their own bone health,” and suggest several ways dietetic practitioners can address this knowledge gap including taste testing unfamiliar dairy products; considering how dairy products fit into traditional dietary behaviors; including fathers in interventions and tasting recipes; encouraging formal communication among parents, reputable sources, and friends. [Nan LV and Brown JL, *J Am Diet Assoc*, 110: 1207-1215, 2010]

### **A multivitamin and mineral supplement found to reduce adiposity, and improve energy expenditure and lipid profiles in obese Chinese women**

This 26-week, randomized, double-blind, placebo-controlled intervention study among 87 obese Chinese women (18-55 years) found that taking one tablet daily of a multivitamin/ mineral supplement (containing a total of 29 vitamins and minerals) significantly lowered body weight, body mass index (BMI), fat mass, total and LDL-cholesterol, and raised resting energy expenditure, and HDL-cholesterol compared to the placebo. A third group who took 162 g of calcium per day (same amount of calcium as in the multivitamin/mineral tablet) “also had significantly higher HDL-cholesterol and lower LDL-cholesterol compared with the placebo group,” but observed no other significant changes. “The purpose of having the calcium group in this study,” say the authors, “is to examine whether vitamins and minerals besides calcium also have important roles in reducing body weight and improving lipid profile in obese women. Our results showed that supplementation with multivitamin and mineral were more effective than calcium alone in improving these outcomes.” [Li Y et al., *International Journal of Obesity*, 34: 1070-1077, 2010]

### **Other Publications of Interest**

- *Physical activity and dietary intake of children aged 9-11 years and the influence of peers on these behaviours: a 1-year follow-up.* [Coppinger T, et al., *European Journal of Clinical Nutrition*, 64: 776-781, 2010] This study investigated physical activity and dietary intake and the influence of

peers on these behaviors in 106 children (9-11 years), and found the children had insufficient energy intakes, physical activity levels and fruit and vegetable consumption, but high intakes of saturated fat and sodium. Low calcium intakes in males and iron intakes in females were a cause for concern. Peers significantly influenced the children's level of physical activity, but not their dietary intake.

- *Food label use and its relation to dietary intake among US adults.* [Ollberding NJ, Wolf RL, and Contento I, 110: 1233-1237, 2010] Researchers used data from the 2005-2006 National Health and Nutrition Examination Survey to describe the prevalence of food label use and the relationship between food label use and nutrient intake. More than 60% of participants reported using the Nutrition Facts panel, with label users reporting healthier nutrient consumption than non-label users, with the greatest differences being total calories and fat intake.
- *Dietary Guidelines in the 21<sup>st</sup> Century – a Time for Food.* [Mozaffarian D and Ludwig DS, JAMA: 304(6): 681-682, 2010] This commentary contends that taking a nutrient-based approach to formulating dietary guidelines, as has been the practice for many years “may foster dietary practices that defy common sense.” For example, considering a few nutrients, “a national obesity prevention program categorizes whole milk yogurt and cheese with donuts and French fries to eat occasionally.” Instead, the authors say food-based targets should largely replace nutrient-based targets. This change, “would facilitate translation to the public, correspond with scientific advances in chronic disease prevention, mitigate industry manipulation, and remedy widespread misperceptions about what constitutes healthful diets.”
- *Snacking is associated with reduced risk of overweight and reduced abdominal obesity in adolescents: National Health and Nutrition Examination Survey (NHANES) 1999-2004.* [Keast DR, Nicklas TA and O'Neil CE, Am J Clin Nutr, 92: 428-435, 2010] Researchers used data from the National Health and Nutrition Examination Survey (NHANES) 1999-2004 to examine the associations of snacking with weight status and abdominal obesity in adolescents 12-18 years of age. Results showed that “adolescents who consumed  $\geq 2$  snacks/day were less likely than nonsnack consumers to be overweight” and less likely to have abdominal obesity. “Longitudinal studies are needed,” say the authors, “to further evaluate whether snacking prevents weight gain in adolescents.”
- *Parental influence on children's early eating environments and obesity risk: implications for prevention.* [Anzman SL, Rollins BY and Birch LL, International Journal of Obesity, 34: 1116-1124, 2010] This review argues that the first years of a child's life -- the prenatal period, the postnatal suckling period, and the transition to a modified adult diet -- “may present opportunities for preventive interventions” and that parents have the potential to be agents of change in that process. They highlight ways that parental feeding practices and their own eating behaviors affect a child's eating and obesity risk.
- *Foodborne illness: is it on the rise?* [Nyachuba DG, Nutrition Reviews, 68(5): 257-269, 2010] This article states that although data from the Centers for Disease Control (CDC) showed little change in the incidence of foodborne illness between 2008 and the preceding three years, “foodborne illness remains a persistent problem,” causing 76 million illnesses and 5,000 deaths each year in the United States. The paper states that food can become contaminated at any point during the food processing or preparation and “interventions must be implemented at every step..., from farm to table,” and suggests strategies for controlling potential food safety hazards.