For more than a hundred years, providing the nation’s millions of children with nutritious food has been a goal. School food service programs have researched, developed, and evaluated how to feed school children nourishment for growth and optimal learning. In 1946, as the National School Lunch Program (NSLP) was initiated, Congress enacted The National School Lunch Act to safeguard the health and well-being of children. These efforts were later expanded and strengthened with the Child Nutrition Act of 1966, which led to establishing the School Breakfast Program to assist in meeting the nutritional needs of low-income children.

In the 1990s, to help minimize the risk of developing chronic-related diseases, the *US Dietary Guidelines for Americans* were applied to the NSLP. School meal programs have made great strides. They play an important role in the nutritional adequacy of children’s diets. In fact, according to the third School Dietary Assessment Study (SNDA-III), middle and high school students who participate are less likely to have inadequate intakes of vitamin A, vitamin B-6, vitamin C, folate, thiamin, magnesium, and phosphorus than those who do not. Results from SNDA-III also report, however, that “schools need to do even more to reduce the availability of high-calorie, low-nutrient foods and make school meals more nutritious.”

With the onset of the obesity epidemic and about 37 percent of children at-risk for overweight or who are overweight, the role of food in schools (i.e. breakfast, lunch, snacks, competitive foods) can be critical in affecting acute and long-term health. Schools can play a part in helping to reverse the trends of increased overweight and obesity by providing nutrient-rich, calorically-balanced foods that minimize hunger. This newsletter highlights peanuts as part of this approach.
Childhood Obesity in the Limelight

Childhood obesity remains the center of attention and numerous initiatives and intervention studies have attempted to target strategies that can be cost effective and translatable to the public. Intervention studies that are geared toward children are far fewer and the majority have been ineffective and mainly conducted in clinical settings versus “real world” environments. The evidence is also limited for high-risk groups who are: significantly overweight, adolescent, low-income, or minority.

Mexican-American children have the highest prevalence of being overweight compared to other ethnic groups. Though this population is most at risk, they are among the least likely to receive health services. Since obese children are more likely to be obese as adults, and since they are at higher risks for health related problems during their youth and in adulthood, there has been a need for effective interventions targeted at vulnerable populations.

When people consume a small amount of peanuts on a daily basis, the research shows that heart disease risk can be cut in half and the risk of diabetes by a quarter. Peanuts have also been time and time again successfully included in weight loss studies. The research is showing that this naturally complex plant food may help in providing a solution.

Family Lifestyle and Overweight Prevention Program (FLOW)

The Family Lifestyle and Overweight Prevention Program (FLOW) is an ongoing US Department of Agriculture (USDA)-funded school-based program with family and community components. One main goal is to prevent the growing problem of overweight and obesity in high-risk children. FLOW is looking at promoting sustained weight loss to help in preventing the onset of chronic diseases. FLOW has a unique intervention approach, which combines positive nutrition education, physical activity, and a snack intervention of peanuts or peanut butter daily as a strategy to improve eating patterns and snacking habits.

Over 800 Mexican-American adolescents have been part of this cooperative research program between the USDA Children’s Nutrition Research Center and the Baylor College of Medicine in Houston, Texas. FLOW targets overweight Mexican-American middle-school children, ages 10-15 years old, and has successfully expanded to additional schools.

Leading authorities have recognized FLOW including The Cochrane Collaboration in their review of “Interventions for Treating Obesity in Children” published in 2009. The Collaboration oversees a library, The Cochrane Library, with the world’s best medical research studies that are considered the gold standard in evidence-based health care. Of the 6,489 studies screened in writing the review, FLOW was identified as one of three behavioral strategies to produce results at six months.

In the American Heart Association summary of the Childhood Obesity Research Summit published in the journal Circulation, the FLOW study was called an “effective means for promoting initial weight loss.” FLOW can be considered the only school/community-based program to demonstrate long-term weight loss success. A landmark paper on the FLOW study published in 2009 in the research journal Obesity, showed that at one year, 80 percent of children in treatment decreased or maintained weight, while almost 65 percent of the control group gained weight. At two years, two-thirds of the treatment group continued to lose or keep weight off, the direct opposite of the control group, two-thirds of whom gained weight. Weight loss and weight gain was measured using zBMI score, which factors in height and growth patterns.

Percent of Obesity Among Hispanics

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<th>Control Baseline to 1 year</th>
<th>Treatment Baseline to 2 years</th>
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zBMI is Body Mass Index that factors in growth.
The Backpack Raid

A unique strategy has been used in the FLOW program, which targets snacking. It is known as “the backpack raid.” Many of the children prior to the study were eating high-calorie, nutrient-poor snacks. To replace them with healthier options, the students in the study exchange the chips, cookies, and cakes commonly found in their backpacks for peanuts and peanut butter with fruits and vegetables each day. This swap for healthier snacks, considered a “snack intervention” is a fun, easy solution that helps improve quality of calories, feelings of fullness, and unhealthy eating habits.

People who consume peanuts and peanut butter have been shown to take in more hard-to-get nutrients than those who do not eat them. Peanut eaters had higher vitamin A, vitamin E, folate, magnesium, zinc, iron, calcium, and dietary fiber in one study, while levels of vitamin E, niacin, folate, magnesium, copper, and potassium were significantly higher than non-peanut eaters in another study. In a different study, blood magnesium levels increased in all of the peanut eaters, but not in non-peanut eaters.

Studies also show that peanuts provide a feeling of fullness that lasts significantly longer than that of high carbohydrate foods. They are rich in protein and fiber, which are thought to contribute to this satiety, as well as the fact that peanuts can help keep blood sugar more stable even when eaten with high glycemic index foods. New evidence is indicating that oleic acid, a type of monounsaturated fat found in peanuts, may also stimulate a hormone linked to satiety.

Kids Consuming More Calories from Snacks!

Over the past 30 years, snacking has been the reported cause of increasing calorie intake, whereas breakfast, lunch, and dinner calories have stayed the same or declined. Unfortunately while in school, 40 percent of children consume one or more foods from competitive sources, which are primarily energy-dense, low-nutrient foods often consumed as snacks.

Kids Want to Know: Where Are My Peanuts?

Even though peanuts and peanut butter may not be considered regular foods to Mexican-Americans, they are very well accepted by students in the FLOW program. In fact, after the treatment regimen is complete, the students in FLOW come back asking for more.

Children choose peanuts over high-calorie, nutrient-poor snacks . . .

Peanuts and peanut butter have an enjoyable flavor and are an American favorite. One study that included peanuts and peanut butter versus a low-fat diet found that peanut-eaters were more likely to continue with the diet because they enjoyed their food more.
Peanuts for the Lunchbox

Peanuts have been recognized in history for their protein, in recent decades for their healthy fats, and emerging evidence points to their myriad of micronutrients and functional components that are likely contributing to health benefits. Known also for their role in reducing cravings, peanuts provide lasting energy until the next meal. Although peanut-eaters may take in more calories, they have lower BMIs and lower risk of chronic disease.8, 16

Peanuts and peanut butter are key components to the success of the FLOW program in schools and are affordable, nutrient-rich, and flavorful. Packing your child’s lunchbox with peanuts may help pack off the pounds and promote long-term health.

Quick Tips for Healthy School Snacking

Have you ever thought of adding a spoonful of peanut butter to the veggie plate? Kids will love it and can make a snack themselves and for their friends.

1. Cut some vegetables of choice (i.e. peppers, celery, carrots, broccoli)
2. Have your child scoop out a spoonful of peanut butter and put it on a plate
3. Add some spices such as cinnamon or even pepper flakes and mix (some kids like it!)
4. Dip and enjoy!

Kids will take in more vegetables and build a habit of choosing healthy snacks, so dip it, don’t skip it!

Go to www.peanut-institute.org for:

The Peanut Institute is a non-profit organization that supports nutrition research and develops educational programs to encourage healthy lifestyles.

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References