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## Shape Up America! Newsletter

### The Sour Side of Sugar

by Barbara J. Moore, PhD

The year 2009 may prove to be a watershed for sugar research and policymaking. No fewer than four important studies have been published since the beginning of April examining the effects of sugar-sweetened caloric beverages (SSBs) on metabolism and body composition.<sup>1-4</sup> The results of these studies reveal the damaging effects of sugar - in liquid form - on human metabolism in both liver and muscle, and consistently link higher consumption of SSBs with weight gain and reduced consumption of SSBs with weight loss. Several researchers now suggest that the evidence against SSBs is enough to justify policy changes such as an excise tax on soda.<sup>1-3,5</sup> An excise tax could profoundly affect the health of Americans by reducing SSB consumption and raising billions of dollars in revenues to finance obesity prevention initiatives. The research discussed below also raises questions about the insidious effects and questionable ethics of marketing SSBs to young children and teens and calls for consideration of warning labels similar to those now appearing on cigarettes.

It is worth noting that SSBs are not always defined in precisely the same way in each study. The broadest definition from a policy standpoint includes all beverages sweetened with sugar, corn syrup or any other caloric sweetener. This would include all calorie-containing carbonated or non-carbonated drinks including soda or pop, sports drinks, energy drinks, juice drinks, blended sweetened teas and coffee drinks, as well as sugar-sweetened alcoholic beverages.

The first of the four studies examined data from more than 3000 children and teens who participated in the 2003-2004 National Health and Nutrition Examination Survey (NHANES).<sup>1</sup> After analyzing the diets of these participants, the researchers concluded that replacing SSBs with water could save about 235 calories per day. Americans are consuming 150 to 300 more calories today than they did 30 years ago,<sup>6-7</sup> with approximately half of those extra calories coming from SSBs.<sup>8</sup> The data from this study suggest that replacing SSBs with water would begin to offset the steady increase in calories that has occurred over the past three decades. This would be a significant step toward reversing the dramatic increase in obesity that has occurred in the American population during that period.

The second study supports the idea that replacing SSBs with water is helpful for weight loss. This study, called the PREMIER trial, included 810 adults who participated in an 18-month diet and lifestyle intervention.<sup>2</sup> A major strength of this study was that it controlled for both physical activity and fitness while assessing the impact of reducing calories consumed from sugar. At the beginning of the study, participants were consuming 356 calories per day (19% of total energy intake) in the

form of SSBs. A concerted effort to replace SSBs with non-caloric alternatives produced modest but significant weight loss.

The remaining two studies show that SSBs can have harmful effects on metabolism and body composition by increasing insulin resistance (a condition that can lead to diabetes), body mass index or BMI (a marker of overall fatness), and waist circumference (a marker of central obesity that is widely considered a high risk for diabetes and heart disease). One of these studies<sup>3</sup> included more than 6000 adolescents; the other study<sup>4</sup> of overweight and obese adults was much smaller since it was a metabolic ward study that required strict control of dietary intake.

Taken together, these four studies provide powerful evidence that national policy changes such as an excise tax on SSBs may be called for. Such a tax would raise the price of SSBs and consequently, reduce consumption and promote weight loss if consumers reach for water instead. Some proponents have asserted that an excise tax of one penny per ounce would reduce SSB consumption by more than 10% and that support for such a strategy is strong when people know that the revenues generated will support obesity prevention efforts.<sup>5</sup>

The studies described above suggest that a reduction in SSB consumption would not only help stem the growing epidemic of obesity, but also reduce the prevalence of insulin resistance and type 2 diabetes that now afflict a growing number of obese children. Additionally, we may now have ethical grounds and a moral responsibility to prohibit the marketing of SSBs to children and adolescents in all media, as well as in our nation's schools. A warning label identifying SSBs as hazardous to health should also be considered.

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*Barbara J. Moore, PhD, is President and CEO of Shape Up America!*

### [References](#)

## **Get Out! Outdoor Play for Children and Adults**

by **Brian Clocksin, PhD**



Changes in activity levels, whether we call it play, physical activity, or exercise are needed to address rising obesity trends and to promote personal and social development. The past 25 years have seen a drastic increase in obesity levels, mirrored by a subsequent decrease in physical activity levels in children and adults. The decrease in children's physical activity levels is most evident in out-of-school time. Historically, out-of-school time was spent outdoors, routinely in unstructured and unsupervised play. This generation of children is spending 25% less time engaged in outdoor play when compared to their parents' generation.<sup>1</sup>

The physical, social, and emotional benefits of play, and particularly outdoor play, have been well documented. Unstructured play and physical activity promote healthy brain development,<sup>2</sup> the development of social skills (conflict resolution, negotiating skills, and group interaction),<sup>3-5</sup> curiosity and self-regulation.<sup>6,7</sup> Schools, however, are decreasing the time for recess and physical education,<sup>8</sup> in part due to curricular changes resulting from No Child Left Behind mandates.<sup>9</sup>

Young children engage in greater amounts of physical activity, and at a higher

intensity level, when allowed to play outdoors.<sup>10</sup> For each additional hour of time outdoors, children engage in over 20 minutes of moderate-to-vigorous physical activity (MVPA).<sup>11</sup> Whether our goal is to combat the obesity epidemic or promote personal and social development we need to look at additional ways to be physically active and engage in outdoor play.

### **Strategies for Promoting Outdoor Play & Physical Activity**

- **Provide safe access to neighborhood parks and playgrounds.** Access to parks and playgrounds is highly correlated to physical activity levels in children. Researchers have noted that mothers' perceptions of neighborhood safety also correlated with physical activity levels in children.<sup>1</sup> Parents, teachers and physical activity advocates can promote physical activity in outdoor spaces by providing a safe environment. One study noted an 84% increase in physical activity levels in children simply by providing supervised access to school playgrounds in after-school and weekend hours. Playgrounds can also serve as a fun and unexpected workout site for adults.
- **Integrate technology to attract media-savvy movers.** Preschoolers who participate in less than two hours of media (e.g., television, computer games, Internet) per day engage in an average of 30 minutes more outdoor physical activity than their peers who utilize media more than two hours.<sup>1</sup> Breaking the attraction to media can be difficult in children and adults, so look for ways to integrate technology into outdoor physical play. With greater access to GPS technology came the outdoor pursuit of [Geocaching](#) (iPhone users, there is an app for that, too!), a treasure hunt using a hand-held GPS. Many GPS units (and smartphones) also have a compass built in to allow for orienteering that can be done in urban settings or on orienteering courses across the world. These are great activities for individuals and families.
- **Promoting outdoor play at home and school.** Parents and teachers occupy a great deal of a child's day. Starting a garden at home or a gardening club at school is a great way to integrate learning and outdoor activity for children and adults. Another idea is to create a [walking school bus](#) in which parents pick up school children along a predetermined route so that the group walks safely together to school each day. Parents take turns "driving" the bus. A walking school bus has been shown to increase physical activity levels of children and parents.

There are a number of resources and websites dedicated to promoting outdoor play and physical activity. Outdoor play provides an opportunity to cultivate social skills,<sup>5</sup> reduce stress, and may decrease "Nature-Deficit Disorder."<sup>12</sup> Summer is a great time to explore outdoor options, but year-round adventures await children and adults alike.

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### **[References](#)**

## Obesity Prevention, Breastfeeding and Swine Flu

The Institute of Medicine and the Centers for Disease Control and Prevention (CDC) recommend exclusive breastfeeding for at least the first six months of life as one of the key strategies to prevent childhood obesity. In addition to obesity prevention, exclusive breastfeeding is recommended for many reasons that have to do with the good health of both the mother and baby. For example, exclusive breastfeeding helps the mother lose the weight she gained during pregnancy and it also helps her uterus regain its muscular tone. For the baby, exclusive breastfeeding provides maximum transmission of antibodies that protect against illness, as well as providing protection against the subsequent development of obesity.

Some women have expressed concern that if they get the flu (swine flu or any other flu), they should stop breastfeeding their baby for fear of spreading the disease to their infant. This fear is unfounded. Breastfed babies resist the flu and other illnesses and infections better than bottle-fed babies. So, to protect the baby, mothers should continue breastfeeding as much as they possibly can. The CDC has provided information that parents need to know about breastfeeding and the flu:

- Breastfeeding and breast milk are protective against flu viruses because of the antibodies in human breast milk. Babies who are NOT breastfed get sick from infections like the flu more often and more severely than babies who are breastfed.
- Mothers should continue to breastfeed even if they suspect or know they are sick and even if they are taking medicines for treatment. Mothers should be careful not to cough on the baby (consider wearing a mask) and wash hands frequently, but breastfeeding will heighten the baby's protection.
- If the baby is sick, one of the best things to do is keep breastfeeding. **Breast milk is better than anything else, even better than water, juice or Pedialyte® because it helps protect the baby's immune system.**
- For more information on this issue, go to the [CDC website](#).

## Menus for Weight Loss and Healthy Eating

Shape Up America! offers these simple, convenient [1500 calorie](#) and [2000 calorie](#) menus to help you eat healthfully while controlling your calories.

## Recipe of the Month

Enjoy the Latino flavors of this reduced-sodium chicken dish. Serve with

**brown rice and black beans for a satisfying, delicious meal.**

### **Chickadillo (Chicken Picadillo)**

Makes 6 servings,  $\frac{3}{4}$  cup per serving

#### INGREDIENTS:

- 1 pound chicken breast, boneless, skinless, cut into thin strips
- 2 teaspoons olive oil
- 1 large yellow onion, finely chopped
- 1 medium green pepper, finely chopped
- 1 medium red pepper, finely chopped
- 3 cloves garlic, mashed
- $\frac{1}{3}$  cup no-salt-added tomato sauce
- $\frac{1}{3}$  cup low-sodium chicken broth
- $\frac{1}{3}$  cup fresh lemon juice
- $\frac{1}{3}$  cup water
- $\frac{1}{4}$  teaspoon ground cumin
- 2 bay leaves
- $\frac{1}{4}$  cup golden raisins

#### Garnishes

- Fresh cilantro leaves
- 1 tablespoon capers, drained
- 2 tablespoons green olives, chopped

#### DIRECTIONS:

1. Heat the olive oil in a large skillet over medium heat. Add the onion, peppers, and garlic, and saute until the vegetables are soft, about 5 minutes.
2. Add the chicken and stir fry for another 5 to 10 minutes, until the chicken has cooked through.
3. Add the tomato sauce, chicken broth, lemon juice, cumin, bay leaves, water, and raisins to the vegetables and chicken.
4. Cover the pan and reduce the heat. Simmer for 10 minutes or until the chicken is tender.
5. Remove the bay leaves and serve with brown rice and black beans. Garnish with fresh cilantro, capers, and olives.

*Nutritional analysis per serving (not including rice and beans):* 162 calories, 5 grams total fat, 1.0 gram saturated fat, 46 milligrams cholesterol, 13 grams carbohydrate, 18 grams protein, 2 grams dietary fiber, 133 milligrams sodium.

Source: [Platillos Latinos ¡Sabrosos y Saludables! Delicious Heart Healthy Latino Recipes](#)

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