

## A Final Note

Pharmacologic and surgical treatment of childhood obesity is increasing (Kim, 2002). Drastic methods do not have to be the final alternative to childhood obesity. With the help of professionals, healthful food choices and physical activity can become a family commitment. When parents establish healthful food and activity patterns as early as possible, it has lifelong implications for their children's physical, emotional, and social well-being.

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# ACCEL SPEAKS

## Obesity and Children

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## What Is Obesity?

A way to assess healthy weight is by calculating a number known as body mass index (BMI). The BMI is determined by multiplying current weight in pounds by 700, then dividing that number by height in inches squared (multiply height in inches by height in inches). A BMI from 19 to 25 is considered healthy, between 25 to 30 is overweight, and any number above 30 is regarded as obese (ADA, 2003b).

Medical professionals and educators are deeply concerned by the alarming increase in childhood obesity among all racial/ethnic, age, and gender groups. In some subgroups, more than 30 percent of children are overweight (Sothorn & Gordon, 2003). Since 1970, obesity rates have tripled for school-age children and adolescents (American Dietetic Association [ADA], 2003a).

Although there is no single reason for children becoming overweight, poor nutrition, unhealthy eating habits, low physical activity, and eating for the wrong reasons are identified as key factors causing obesity (Archer, 1989; Sothorn & Gordon, 2003).

## The Negative Effects of Obesity

### Emotional and Social Harm

- Overweight children experience feelings of inadequacy, poor body image, and low self-esteem (ADA, 1999; Archer, 1989)
- Obese children suffer discrimination from peers, teachers, and family members (Sothorn & Gordon, 2003)
- Overweight children cannot wear clothes identified as popular; nor can they move as flexibly or sustain the same energy level as their peers
- Frequently, obese children are not invited to participate in team games, attend parties, or play sports
- Negative biases continue into adult life, as shown in college selection, job hiring, and future promotion (Archer, 1989).

### Physical Harm

- Childhood obesity contributes to high blood pressure and cholesterol, arthritis, increased blood clotting tendency, clogging of the arteries, hyperinsulinaemia, insulin resistance, and an increased incidence of musculoskeletal injuries
- Obese children have increased low-density lipoproteins and body fat, and reduced high-density lipoproteins (Ebbeling, Pawlak, & Ludwig, 2002; Sothorn & Gordon, 2003)
- As overweight children become adults, they face high risk of cardiovascular diseases, diabetes, and other chronic diseases (Sothorn & Gordon, 2003).

## Nutrition and Physical Activity

While obese children do not necessarily eat more, their food choices are often low in nutrition and high in fat and calories. The 30 percent (of total calories) guideline for fat intake across several days should be no more than roughly 10 percent from each fat category (ADA, 1999). Saturated fats are found chiefly in animal products such as meat, poultry, whole or reduced-fat milk, and butter; monounsaturated fats are found in vegetable oils, including canola, olive, and peanut oils; and polyunsaturated fatty acids are found in oils such as safflower, sunflower, corn, flaxseed, and canola oils. A fourth category, trans fatty acids, are found in snack foods and baked goods and should be avoided (ADA, 2001).

Over the past few decades, the trend for U.S. children and adolescents has shown increased energy intake from snacks and evening meals in which carbohydrates contribute most of the increased calories (Stang & Bayerl, 2003). Less than 1 percent of U.S. children and adolescents consume the minimum number of servings from each of the food groups. Ninety-one percent of children ages 6 to 11 do not eat the daily recommended minimum number of five fruits and vegetables (ADA, 1999). While eating less soup, bread, grain, eggs, and milk, children are consuming more poultry, cheese, and carbonated drinks. Their consumption of dietary fiber has decreased, resulting in an increased risk for several chronic diseases, including obesity, heart disease, diabetes, and colon cancer. Fiber

can be found in fruits, vegetables, and beans. For children more than 2 years of age, dietary fiber intake equal to or greater than the child's age is recommended (ADA, 1999).

Family lifestyle determines children's eating and physical activity patterns. Family behaviors, such as irregular meal patterns, snacking, and eating out, contribute greatly to the incidence of obesity. By the time children enter kindergarten, their food preferences and the social situations with which they associate foods are already set. Children with two obese parents have an 80 percent chance of developing obesity in adulthood (Sothorn & Gordon, 2003).

Although family schedules are busy, mealtimes are supposed to be positive, social experiences. Children should not eat alone. Parents should model healthful eating habits; they can encourage children to try new foods, but should not force them. Children, particularly young children, will eat what foods are available. Planning meals low in fat, sugar, and sodium levels establishes healthy lifetime eating patterns.

- Fat reduction strategies include using fat-modified products, eating lean meats, and drinking nonfat milk instead of reduced fat or whole milk.
- Check food labels to identify the fat, sugar, and sodium levels.
- Unsweetened applesauce can be a good substitute for butter and oils
- Instead of milk and butter, use vegetable broth with mashed potatoes
- Lemon juice makes a low-calorie, low-fat

salad dressing option

- For young children, use cookie cutters to make wheat bread more attractive
- Enhance the appeal of fruits and vegetables with healthful dips, such as yogurt, peanut butter, and low-fat sour cream
- Carrots can be thinly sliced and added to meat loaf or pasta sauce
- Water is a healthful choice; carbonated and sugary drinks should be avoided.

Healthful eating is a family effort and requires a balance across the food groups.

In addition to modeling good food choices, parents' physical activity is important. If parents are inactive, their children are likely to be so as well (Sothorn & Gordon, 2003). Physical activity helps maintain weight, and also contributes to children's psychological well-being and assists bone development. Many children need more exercise: 48 percent of girls and 26 percent of boys do not exercise vigorously on a regular basis. Children indicate they do not know what it means to be physically fit. They relate fitness with performance, excelling in sports, having big muscles, and being more popular (Sullivan, 2003).

### Recommended Daily Servings By Food Group

- Bread, cereal, rice, pasta—6 to 11 servings
- Fruit—2 to 4 servings
- Vegetables—3 to 5 servings
- Meat, poultry, fish, eggs—2 to 3 servings
- Milk, yogurt, cheese—2 to 3 servings
- Fats, oils, sugars—to be eaten sparingly.

(Stang & Bayerl, 2003).

Parents cannot rely on physical education classes or recess to supply sufficient exercise for their children. Participation in school physical education classes is declining (ADA, 1999), and these classes do not provide children with the recommended amount of vigorous physical activity (National Institute of Child Health and Human Development Study of Early Child Care and Youth Development Network, 2003). Parents need to monitor and guide their children's activity levels. Remember:

- Children's television viewing and computer activity need to be balanced with physical exercise. Hours of television watching were positively associated with increased body mass index and skinfold thickness (ADA, 1999).
- When possible, instead of taking the car, walk or ride bikes.
- Encourage children's outdoor play. With parent involvement, neighborhoods are safe places for children.
- If children show an interest and it is age/stage appropriate, support their participation in sports and structured activities such as dance or karate. Such activities should be provided for children's physical activity and not for their performance level. Children do not have to be star athletes, Olympic gymnasts, or members on a winning team to participate in physical activity.

When physical activity is naturally built into the family lifestyle, the benefits are long lasting.