

# Super-Size Kids' Meals Lead to Super-Size Kids

Robert P. Schwartz, MD

**T**HE PREVALENCE OF CHILDREN who are overweight doubled in the last two decades and tripled among adolescents. Nationally, the prevalence of overweight (body mass index [BMI] at or above the 95<sup>th</sup> percentile) in 1999-2000 was 10.4% for children aged 2 to 4 years, 15.3% for ages 6 to 11 years, and 15.5% for ages 12 to 19 years.<sup>1</sup> In North Carolina it is worse: Twelve percent of children aged 2 to 4 years, 20% of those aged 5 to 11, and 26% of those from 12 to 18 years old are overweight. If you include those children at or above the 85<sup>th</sup> BMI percentile for age who are at risk for adult obesity, the numbers are 25% for 2- to 4-year-olds, 35% for 5- to 11-year-olds, and over 40% for 12- to 18-year-olds.<sup>2</sup> Obesity in North Carolina, as in the rest of the United States, is truly an epidemic. Even more disturbing are reports that obesity in childhood tracks into adulthood. Data from the Bogalusa Heart Study show that 87% of children who are overweight at less than 8 years of age become obese adults.<sup>3</sup>

Obesity in childhood is not just a cosmetic problem. It is a disease with devastating consequences. Sixty-five percent of obese children 5 to 10 years old have at least one cardiovascular risk factor, and 25% have two or more risk factors.<sup>4</sup> These risk factors include hypertension, hyperlipidemia, and abnormal glucose tolerance. Type 2 diabetes, which before 1992 accounted for 5% of new cases of diabetes in 10- to 19-year-old children, now makes up about 30% of cases.<sup>5</sup> The cases are disproportionately increased in certain ethnic groups: African American, Mexican American, and Native American. A recent report found that 25% of obese children and 21% of obese adolescents had impaired glucose tolerance.<sup>6</sup> Other complications of obesity include sleep apnea, skeletal deformity and fractures, liver disease (non-alcoholic steatohepatitis), renal disease, hirsutism (polycystic ovary disease), and psychological disorders (low self-esteem, depression).

Why are our children growing obese? Some blame genetics and say there is nothing we can do. However,

obesity rates are increasing in all parts of the world. Although genes may influence our susceptibility to weight gain, our gene pool has not changed. Instead it is more likely an interaction between genetic factors and our environment, and the environmental (societal) changes are the primary factors driving the epidemic.

## Environmental Factors in Weight Gain

Weight gain occurs when we have an energy imbalance, that is, when energy intake exceeds energy expenditure. Our diets have changed and we now consume large quantities of high-calorie, high-fat foods and sugar-sweetened drinks. Our activity level has also changed. We have experienced a decline in physical activity and an increase in inactivity (television, video and computer games). Let's look first at our diets. Only 20% of children consume the recommended five or more servings of fruits and vegetables per day, and 30% of the vegetables for teenagers are French fries.<sup>7</sup> School choices are often *à la carte* items such as pizza and French fries. High-energy density snacks make up over 25% of caloric intake.<sup>8</sup> Over 80% of teenage boys and girls consume soft drinks daily, and one third of teenage boys drink at least three cans of soda daily. A study of 548 6<sup>th</sup>- and 7<sup>th</sup>-grade children in Boston showed a 60% increase in risk of becoming obese for each 12-ounce can of sugar-sweetened drink consumed daily.<sup>9</sup> Portion sizes at fast-food restaurants (and other eating establishments) have increased so that a large cheeseburger, super-size French fries, and a super-size soda contain 1830 calories. The super-size French fries alone have 610 calories and the Mighty Kids Meal has 1020 calories and 38 grams of fat.

Physical activity in our schools has decreased. Between 1991 and 1995, daily attendance in school physical education classes decreased from 42% to 24%.<sup>10</sup> By the age of 16 or 17, 60% of black and 30% of white girls report no physical activity outside of school.<sup>11</sup> The average child watches three hours of television per day. Thirty-two percent of children aged 2 to 7 and 65% of those aged 8 to 18 have a TV set in their bedrooms.<sup>12</sup> Television promotes weight gain by displacing physical activity and increasing energy intake through con-

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The author is a Professor in the Department of Pediatrics at Wake Forest University School of Medicine, Winston-Salem, NC 27157. He can be reached by email at [rschwartz@wfubmc.edu](mailto:rschwartz@wfubmc.edu).

sumption of high-calorie snacks. Obesity risk increases when children watch over four hours of television daily.<sup>13</sup> Studies have demonstrated a reduction in weight in school children who decreased TV viewing by 40%.<sup>14</sup>

## What can we do about it?

A starting point in turning around this freight train of obesity would be to adopt the recommendations of the *North Carolina Task Force for Healthy Weight in Children and Youth*. ([www.nchealthyweight.com](http://www.nchealthyweight.com)):

◆ **Ensure that all children and young people have 60 minutes of physical activity every day.** Part of this could be at school and part at home. Our schools should include high-quality physical activity programs in their daily schedules, emphasizing fitness and ensuring access and opportunities for children and youth with disabilities or special healthcare needs. Physical activity should be a routine part of everyday life for all family members. Weekend activities could include enjoyable physical activity for all family members. We should advocate for bike paths, sidewalks, walking trails, playgrounds, public parks, and the use of school facilities for physical activity after school hours.

◆ **Limit consumption of sugar-sweetened beverages.** Water is the best thirst quencher. A 20-ounce soda has 17 teaspoons of sugar and 250 calories. One 20-ounce soft drink a day can result in a 20-pound weight gain over a year. Children need 2-3 glasses of low fat milk (1% or less) to meet the daily requirements for calcium and vitamin D. We should support policies in our schools and communities to ensure that water, 100% juice, and low-fat milk are available in vending machines.

◆ **Limit TV/video time to no more than 1-2 hours a day.** As parents we should avoid having a television set in our children's bedrooms. There are some excellent educational programs, but we should help our children select and prioritize the programs they watch. We should teach them to critique TV commercials and encourage active play as an alternative to TV and video games.

◆ **Watch out for portion distortion – provide appropriate portion sizes for foods and beverages.** We should avoid super-size meals and all-you-can-eat buffets. Portion sizes for children should be appropriate for their age. When we are served large portions we can ask for a take-home container, or we can share a meal and reduce the cost. This also holds true for beverages. A 40-ounce soda has 410 calories and a 32-ounce old fashioned shake 1200 calories.

◆ **Prepare and eat more meals at home (and fewer meals and snacks away from home).** When eating out we should choose restaurants with healthy options. We could select restaurants that display the *Winners Circle* symbol and offer healthy dining choices. We should start each day with a healthy breakfast. Don't skip meals; you wouldn't get in your

car and drive off with an empty tank. We should offer our families a variety of fruits and vegetables at home. TV should be limited during family meal times, and parents should be a role model for healthy eating.

Other guidelines are aimed at healthcare providers:

◆ **Motivate behavior change in patients (and physicians).** Most of our patients know that they eat too much fast food, drink an excessive amount of sugar-sweetened drinks, and need more physical activity. However, knowledge is only weakly correlated with behavior change, and unwelcome advice often leads to resistance. We need to learn how to motivate our patients to change their unhealthy behaviors. One method is "motivational interviewing" or "brief negotiation," a patient-centered approach developed by Rollnick and Miller to resolve ambivalence and motivate behavior change.<sup>15</sup> It has been successful in substance abuse and tobacco counseling, and is now being used for health promotion and disease prevention.<sup>16</sup> It is based on developing listening skills, using open-ended questions and reflective listening, and helping patients identify discrepancies between their core values and their behaviors. It can be done in 15 minutes and is an approach we should consider.

◆ **Provide adequate reimbursement for obesity prevention and treatment services.** Without adequate reimbursement healthcare providers cannot offer comprehensive prevention and treatment services for overweight children and adolescents. Obesity, with the serious complications of glucose intolerance, hypertension etc., is a disease, and public and private third-party coverage is an essential requirement to reduce health disparities by ensuring equitable access to prevention and treatment services.

Who should we as physicians target in our efforts to reverse the obesity epidemic? I would argue that we should target everyone. We don't selectively immunize against polio or recommend car seats only for certain children. We should not wait until children have type 2 diabetes or other complications of obesity before we intervene. A healthy diet and being physically active is the right prescription for all families.

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