

# Childhood Obesity,\* A Modern Plague

## A Gray-Haired Pediatrician's Perspective

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Charles F. Willson, MD

My best friend died of sleep apnea at age 48. A long-time patient of mine at age 23 fell asleep at the wheel and died as his car ran into a tree. A 14-year-old girl referred to our pediatric clinic for the first time died of sleep apnea in the back seat on the way to our clinic. All three individuals shared one fatal flaw; they were overweight. You can't blame me for being outspoken on the topic of obesity and its complications. I, too, am overweight and out of shape (unless you consider a pear to be the ideal shape for a man). I know that I should eat less and exercise more, and I will—tomorrow. Today, I want to share some observations about the rising epidemic of childhood obesity in our state and across our nation.

While losing patients in their teens and twenties and a friend in his forties is heartwrenching, the more frightening observation is that we pediatricians are seeing an increasing number of overweight children every week in our offices—eight- and nine-year-olds with weights and body mass indices above the ninety-fifth percentile for age. Acanthosis nigricans, a velvety darkening of the skin of the neck and the axillae, is being identified every day by our residents and medical students. I can count on one hand the number of times I diagnosed acanthosis nigricans in my first twenty years of caring for large numbers of children. The old adage "You find what you look for" is certainly operative here. I must have missed some cases but I couldn't have missed all the cases we're now seeing. Why is acanthosis important? It is found in patients with insulin resistance, one of the first

steps toward adult-onset diabetes mellitus. If our children are developing insulin resistance in their teens, won't they develop diabetes in their twenties and complications of diabetes in their thirties and early forties? These complications include blindness, kidney failure, neuropathy, and atherosclerotic heart and large vessel disease leading to limb amputation and heart attacks. Even without diabetes mellitus, the overweight child can look forward to problems with sleep apnea, arthropathies, and heart failure.

But, in my mind, the physical complications of obesity are overshadowed by the immediate psychosocial impact of being "fat." Bill Cosby dealt sympathetically with childhood obesity in the cartoon series "Fat Albert," in which Albert was a leader, a solver of problems, and much beloved by his friends. The stark truth is that an overweight child is often perceived by his friends as being lazy, gluttonous, and unappealing. Some overweight children try to compensate by being outgoing and frivolous, but for many trapped in their adiposity, the life of a loner is their fate. Some are too heavy to participate successfully in school sports. Attempts at dating are usually rejected. For the academically gifted, school work may provide a realm of success if the child can withstand the rejection by her peers in the other areas of growing up. I mourn for the lost youth of these children.

Why are so many of our children becoming obese? The scientific studies to elucidate the causes are only starting to be done. The most likely factors are an extraordinarily high caloric diet, rich in fat and carbohydrates, and the lack of adequate physical exercise. Returning home after school, many "latchkey" children watch TV and eat snacks until their parents return from work. For low-income families, their menus consist of the most inexpensive foods such as macaroni and cheese, bread, and hot dogs. If the parent is too tired to cook, a Big Mac or a quarter-pounder with fries from McDonald's may be picked up on the way home. Never before in the history of mankind have food calories been so available and so inexpensive. As the recession took hold in America recently, the fast-food industry responded with super-sizing (double the fries and soft drink calories) and

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\* When referring to a child, I use the term "overweight." I believe that an overweight child doesn't need the additional insult of having his physician call him "obese." Because the epidemic we are facing is truly ugly, I will refer to the epidemic as "childhood obesity."

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Dr. Willson is on the faculty of the Department of Pediatrics at East Carolina University's Brody School of Medicine and is President of the NC Pediatrics Society. He may be reached by email at [willsonc@mail.ecu.edu](mailto:willsonc@mail.ecu.edu).

\$.99 menus. We are a “super-sized” society, and our children are living caricatures.

Children are in school most of the day. If their parents won't provide healthful foods, we can make them eat healthily when we have them in captivity. Look at most school menus: pizza, French fries, hot dogs, and burgers top the list of foods most frequently served. School cafeteria managers tell us that the kids won't eat the healthy foods when they're available. In some states, schools may even contract with McDonald's or Burger King to run their cafeterias. Soft drink machines in schools often bring in additional monies to be used to buy “extras” such as band uniforms and sports equipment. If a child frequented the salad bar daily I'd worry about a diagnosis of anorexia nervosa, but that discussion is for another day.

Well, what am I doing about this epidemic? I'm counseling the child about eating right: five servings daily of fruits and vegetables (are French fries a vegetable?), watch out for seconds, and avoid “empty calories” such as soft drinks and candy bars. I'm strongly recommending a minimum of thirty minutes of exercise three times a week. Pick an exercise that you like to do, so you won't try to avoid it. A walk after supper with a parent burns calories and promotes communication between parent and child. What a great idea! I've never had a parent tell me that they had started a daily walk routine. I have had parents tell me that the child has no willpower. If there is a bag of cookies in the home, the child will devour all the cookies in one sitting. Who buys the cookies? One parent with whom I really sympathized told me that she no longer bought cookies, candy, and chips. Her son, who had just gained five pounds in one month, had taken a loaf of bread to his bedroom and eaten most of it. One resident who had just counseled parent and child about healthy eating went back to the exam room to drop off the appointment slip for a sleep apnea study. She found the overweight child eating a Snickers candy bar. How feeble the five servings of fruit and vegetable are when compared to the chocolate, peanuts, and nougat (what's nougat?) of a Snickers bar.

Early in my career as a general pediatrician, I decided to try one of my innovative ideas on an overweight but likeable teenage girl. I told her about healthy eating, gave her an 1800 calorie diet sheet, emphasized a gradually increased amount of daily exercise, and, to assure success, promised that I would see her on a weekly basis. If she lost weight or held steady, I wouldn't charge her for the next weight check visit. If she gained, I'd charge my usual fee. The first week, she lost weight. I was ecstatic. The next week, she held steady. OK, Rome wasn't built in a day. The next two visits, she gained and I charged. Then, I never saw her again. Bruised, I referred my next obese child to a specialist in childhood obesity at a prestigious medical school in the Triangle area. When the child next returned to my office, I eagerly awaited the insights the parent had gained from the referral (I still hadn't received a referral note back, and never did). The

parent looked at me in disgust and said, “The doctor told us to give Johnny \$50 if he lost twenty pounds.” Don't know if Johnny ever got that fifty.

We truly don't yet have the weapons to win the war against childhood obesity. Obesity seems to be a masterful combination of genetics and environment. Children of obese parents are often overweight. Thin parents seem more likely to have thin children. However, as thin Latino parents raise their children in America, we are seeing a frightening increase in overweight Latino children. Overweight Latinos and Native American children have a much higher rate of type two diabetes than do their overweight Caucasian counterparts. The American childhood environment has plenty of calories and few opportunities for physical activity. Vicarious living reigns through TV, movies, and video games. Instant gratification is the order of the day. I saw a TV commercial recently that really hit home: an overweight school-aged boy sitting in front of the TV calls his grandmother in another room on a cell phone, asking her to get him another soft drink from the refrigerator. The fact that I can't remember what the commercial was selling indicates the sponsor may not be pleased with commercial's results, but I do appreciate them running it.

Just because we don't have an immunization against or a cure for childhood obesity doesn't mean we should throw our hands up in despair. We need good epidemiological science to further elucidate the multiple risk factors leading to my best friend's demise. We need pilot projects that attempt to change behaviors that lead to overeating and a sedentary lifestyle. We know that eating healthier and exercising is helpful. We know that enlisting parents in the battle is necessary. Parents need to understand the devastating consequences an overweight child faces. Somehow, we must mold our school environment into a place where fitness must happen. When I started making improper choices as a junior high schooler, my parents shipped me off to a boarding school where we had physical education or team sports from 3:00 to 5:00 PM, Monday through Friday. The boarding school menu was less than exciting. The only question about what was for dessert was the color of the jello. Jello has not touched my lips since. But I was lean and fit.

Lengthen the school day? If I were a politician, I wouldn't base my platform on that idea. We'd need more money for teachers and school employees. The after-school day-care industry would pitch a fit. How could a teen with a car make enough money for gas and insurance without that after school job? Bus drivers would need to work late into the evening. But, in an epidemic, all remedies must be considered and tried. I'm sure there are other, better ideas out there, and I invite you to participate in the discussion.