



# Childhood Obesity—A Growing Epidemic

Years ago, I heard an oral surgeon remind his students that at the end of the root of a tooth to be removed was a whole person. Those words served as a reminder that dentists treat people and not just infected teeth. That insight is ingrained in pediatric dentists who have become proactive advocates for general health. The recent upsurge in childhood obesity now demands our attention, as we consider the overall well-being of children.

If an epidemic denotes the wide spread occurrence of a disease, childhood obesity is a new, silent epidemic affecting increasing numbers of children and young adults. Just two months ago, the American Academy of Pediatrics issued a news release alerting the public to "the dramatic increase in the prevalence of overweight children." The release referred to a policy statement published in the August 2003 issue of *Pediatrics* (2003;112:424-430), "Prevention of Pediatric Overweight and Obesity." That policy statement attracted national attention provoking articles in newspapers and magazines, and reports on national network television programs. In the cover story of its September 22 issue, *Newsweek* magazine refers to the tripling of the percentage of overweight children to 15% since the 1970s. The data is alarming because overweight and obesity in children leads to a wide assortment of other childhood diseases including orthopedic problems, liver disease, asthma, and heart disease. Furthermore, overweight or obese adolescents have a 70% chance of becoming overweight or obese adults with accompanying adult diseases. Yet, like tooth decay, most childhood obesity is preventable and treatable, often times with proper education.

To assess child development, health care professionals routinely monitor and record height and weight for comparison with national norms. Body mass index (BMI) is another measure used to assess proper physical development. It is the ratio of weight in kilograms to height in meters squared, and it can be compared to average percentiles published by the Centers for Disease Control. BMI values between the 85th and 95th percentiles are considered a risk factor for overweight, whereas values above the 95<sup>th</sup> percentile represent obesity. Since high BMIs are more prevalent today, the question became why? What are the likely causes in the dramatic increase of obesity? While the condition results from many factors, the major causes are "eating too much and moving around too little." In recent decades, children's diets have changed to a higher consumption of processed foods with "empty" or nonnutritious calories, while at the same time, normal and usual physical activities have declined, replaced for many children by an average of 3 to 5 hours of watching television per day.

Simply put, there is an imbalance between calories consumed and calories expended.

When carbohydrates are consumed, insulin is released to aid metabolism and it controls appetite. However, if the insulin level peaks and drops quickly, hunger develops. If the carbohydrates are complex carbohydrates, metabolism is slow and the insulin level declines slowly. On the other hand, if carbohydrates are simple, refined sugars, the insulin level drops quickly. Sugar provides a quick fix for hunger pains, but then, more hunger follows, and overeating results. Unfortunately, so much of our processed foods contain sugar, and it is remarkable to note how many foods in cans or packages have sugar added as an ingredient. While that might not be a problem for all, it does contribute to ill health for a large number of children.

Changes in lifestyle and diet are difficult to accomplish and not easy to achieve. Yet the dentist is in a unique position to help parents prevent obesity in children. More than other health care professionals, dentists have regular periodic contact with children through critical years of development. Since the dentist already provides dietary information in regard to dental caries, there is an ideal opportunity to educate parents concerning the value of proper diet for general health and well-being. A national runners club recently provided the following advice on its Web site: walk or run or participate in sports, but be physically active; eat foods that do not come in wrappers; if the food comes in packages, read the labels, and select the ones with little or no sugars added; when shopping in supermarkets, visit the store periphery which has dairy products, fresh fruits, and vegetables. That advice is important for us to convey to parents to prevent childhood obesity. When we note the possibility of a problem, we should not ignore the issue, but rather, with sensitivity, refer the patient for treatment. Obesity is difficult to treat, but success can be achieved with appropriate attention.

For further information, refer to the following Web sites, or use a standard search engine and search for "childhood obesity."

1. American Academy of Pediatrics—[www.aap.org/policy/s100029.html](http://www.aap.org/policy/s100029.html)
2. American Academy of Family Physicians—[www.aafp.org/afp/990215ap/861.html](http://www.aafp.org/afp/990215ap/861.html)

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