THE PARENT LETTER

About Our Kids: A Letter for Parents by the NYU Child Study Center

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UNDERSTANDING CHILDHOOD OBESITY

What is obesity?
Weight gain, whether in children or adults, typically occurs when there is a caloric imbalance – that is, when the amount of calories consumed exceeds the number of calories expended. When a person regularly ingests more calories throughout the day than he or she can burn off, the body stores the extra calories as fat.

Obesity is defined as an excessively high amount of body fat in relation to lean body mass. One common screening device to determine what is “excessively high” is the Body Mass Index, or BMI. A BMI is mathematically derived by using height and weight measurements. The resulting number provides a general indication of whether a person’s weight falls within a healthy range.

First, a BMI is calculated by dividing the child’s weight in pounds by the square of the height in inches, then multiplying that number by 703 [(lbs/inches^2) x 703]. For example, Jenny, a 10-year-old girl, is 4’3” (51 inches) tall and weighs 76 pounds. Her BMI is 20.5 [(76/51^2)x703].

Because the amount of body fat changes with age and differs between girls and boys, interpreting a child’s BMI should take these factors into account. The Centers for Disease Control and Prevention [http://apps.nccd.cdc.gov/dnpabmi/Calculator.aspx] provides age and sex specific growth charts, known as BMI-for-age. By plotting a child or teen’s BMI, a percentile ranking can be obtained. The percentile indicates the relative position of the child’s BMI number among children of the same sex and age. Established guidelines for interpreting BMI-for-age are listed in the table below. Of note, for children and teenagers, the term “Overweight” is typically preferred to “Obese.”

Weight Status Category	Percentile Range
Underweight	Less than the 5th percentile
Healthy weight	5th percentile to less than the 85th percentile
At risk of overweight	85th to less than the 95th percentile
Overweight	Equal to or greater than the 95th percentile

In Jenny’s case, her BMI of 20.5 places her BMI-for-age at the 87th percentile. Following the established guidelines, Jenny is considered at risk of overweight.

How common is childhood obesity, and who is most likely to be afflicted?
Overweight among children and adolescents has more than quadrupled over the past four decades. In the late 1960s, approximately 4% of children ages 6 through 19 were overweight. Now, it is estimated that approximately 18% of same aged children are overweight. Obesity has even impacted the preschool population. At present, nearly 8% of four- to five-year old children in the United States are overweight. Estimates indicate that an additional 22% of U.S. preschool children are at risk for overweight. In all, including those children and adolescents who are at risk for overweight, up to 30% of America’s youth carry excessive body weight. Without significant intervention, current trends suggest that the prevalence of obesity will continue to rise, beginning at even younger ages.

The surge in rates of obesity has been noted in all racial and ethnic groups, but some groups are affected more than others. For both boys and girls, overweight is highest in Mexican American children, followed by non-Hispanic black children, and finally non-Hispanic white children. The highest rates of overweight, however, are found among non-Hispanic black adolescent girls. A quarter of this population is overweight, and consequently, they are at increased risk for developing health-related problems. Independent of racial/ethnic differences, lower socioeconomic status is another important predictor for high overweight and obesity prevalence in U.S. children. Because of their reduced access to health care, healthy foods, and safe neighborhoods in which to engage in outdoor activities, children living in poverty are especially vulnerable to obesity. Finally, the children who are at the higher end of the weight spectrum are becoming even heavier.

What are the physical effects of obesity?
Child overweight is a strong predictor for obesity-related health conditions. For instance, compared to children with a healthy weight, overweight youth may be more likely to develop asthma and other chronic conditions. Furthermore, children are no longer "growing out of" obesity. Thirty percent of overweight children and 70% of overweight adolescents will go on to become obese adults (this number increases to 80% if the adolescent has at least one obese parent). Overweight children are twice as likely to develop cardiovascular disease and hypertension and three times as likely to develop diabetes. Many obesity-related health conditions once thought applicable only to adults are now being seen in children, and with increasing frequency. Examples include nonalcoholic fatty liver disease, polycystic ovary syndrome, and disordered breathing during sleep. With the average age of onset declining, "Adult-onset diabetes" is now a misnomer, and is more commonly referred to as Type 2 diabetes. In the past 20 years, the prevalence of childhood diabetes has shown a 10-fold increase and more children than ever before are being hospitalized and taking medication to control this disease. As a result of the current obesity epidemic and its broad health ramifications, this is the first generation of children with a shorter life expectancy than their parents.

What are the effects of childhood obesity on a child's self-esteem and emotional well-being?
The most immediate consequence of overweight as perceived by the children themselves is social discrimination. Obesity is associated with poor self-esteem, depression, social withdrawal, anxiety, and the feeling of chronic rejection. Overweight and obese school-aged children are more likely to be the victims and perpetrators of bullying and aggression than their normal-weight peers. The stigma that obesity is a self-inflicted problem indicative of slothfulness and poor self-control can put strong emotional strain on an overweight or obese child. The results of a recent study, in which obese children rated their quality of life, indicated that teasing, difficulty playing sports, fatigue, sleep apnea, and other obesity-related problems severely affect overweight children's sense of well-being. In turn, the related psychological stress can impede social and academic functioning.

What can teachers and parents do?
Parent and teachers should facilitate the development of appropriate feeding practices by determining what, where, and when a child eats. Food is often used as a way to reward, bribe, or soothe a child; however, this can establish bad eating habits in that children eat in the absence of hunger. Likewise, children should not be made to finish their meals, particularly when they indicate they are full. Young children actually have a good sense of their fullness; yet, as they get older, they learn to overeat in response to environmental cues (e.g., the presence of food or being told to eat). Healthy snacks, fruits, and vegetables should be readily available. Early experiences with foods and flavors will broaden a young child's palate, but bear in mind that a child may need to try a food up to 15 times before accepting it. Children should be encouraged to drink water and to limit intake of beverages with added sugars, such as soft drinks, fruit juice drinks, and sports drinks. Low-fat milk (1% or skim) and dairy products are recommended after children turn 2 years old.

Experts recommend that children engage in 60 minutes of moderate physical activity throughout the course of a day. The easiest way to increase your child's physical activity is to encourage him or her to engage in lifestyle activity, such as walking or riding a bicycle to school or to the store. Structured physical activities, such as playing sports, can also be encouraged. On the other hand, experts recommend that screen time activities be limited to no more than two hours a day.

Make sure your child's doctor monitors your child's weight gain and calculates his or her BMI yearly. Although relatively rare, a pediatrician can determine if your child's overweight is due to an underlying physical syndrome. In addition, based on the severity of overweight, a pediatrician might recommend that a child lose weight or merely reduce the rate of weight gain as he or she grows.

Written by Andrea Vazzana, Ph.D., Clinical Assistant Professor of Child and Adolescent Psychiatry, Clinical Director of the Harris Obesity Prevention Effort (HOPE) [www.hopenyu.org], Coordinator of the Weight Management Program, and Clinical Psychologist at the NYU Child Study Center. For a consultation, please call (212) 263-6622.

ABOUT THE NYU CHILD STUDY CENTER

The NYU Child Study Center is dedicated to the research, prevention, and treatment of child and adolescent psychiatric disorders. The Center offers evaluation and treatment for children and teenagers with various disorders including anxiety, depression, ADHD, learning or attention difficulties, Autism, eating disorders, and trauma and stress-related symptoms.

We offer a number of treatment studies at no cost for specific disorders and age groups. To see if your child would be appropriate for one of these studies, please call (212) 263-8916 or visit www.aboutourkids.org/research/studies.html.

If you or your child needs immediate assistance, mental health professionals are available 24 hours a day, 7 days a week by calling 1-800-LIFENET (1-800-543-3638), a program of the Mental Health Association of New York City. Help is available in several languages: Spanish: 1-877-298-3373, Chinese: 1-877-990-8585. For other languages, ask for a translator.

For further information, guidelines, and practical suggestions on child mental health and parenting issues, please visit the NYU Child Study Center's website, AboutOurKids.org.