Many young people today are living large. Obesity rates have doubled since 1980 among children and have tripled for adolescents. In the past 20 years, the proportion of adolescents aged 12 to 19 who are obese increased from 5 percent to 18 percent. Obesity is defined as a body mass index (BMI) that is equal to or greater than the 95th percentile of the age- and gender-specific charts developed by the Centers for Disease Control and Prevention (CDC).

Genetic and biological factors can lead to obesity, but less than 1 percent of weight problems are due to biological or mental disorders. Human beings, like animals, are hardwired to eat not simply to sustain life, but to eat high-calorie foods in anticipation of an unpredictable food supply. Our surroundings make it possible to eat fatty foods on a regular basis, but difficult to burn off all those calories through activity. High-fat food is cheap and tasty, and teens’ primary activities—school and media consumption—are sedentary.

Thus, obesity is a social problem rather than a personal flaw or a failure of willpower. Teens, especially, are impacted by their surroundings, and several studies at the University of Illinois-Chicago and the University of Michigan confirm that our modern environment is designed to make adolescents fat.

There are some environmental factors that contribute to teen obesity.
- Schools sell more high-fat, high-calorie foods and sugary drinks than nutritious, lower-calorie choices.
- Low-income communities offer limited access to healthy food. In some neighborhoods, convenience stores are the only places to buy food.
- Adolescents live sedentary lives. Teens spend the school day mostly sitting, and then go on to spend an average of three more hours parked in front of a TV or computer screen.
- School physical education programs have been slashed. In 1991, 42 percent of high school students participated in daily phys. ed. classes. By 2007, that number was 25 percent or lower.
- Airwaves are saturated with food-product ads. Teenagers see, on average, 17 ads a day for candy and snack foods, or more than 6,000 ads a year.
- Big portions provide far more calories than young people can burn up. Fast-food burgers can top 1,200 calories; 64-oz. sodas have...
become the norm; and some popular restaurant chains offer entrees that weigh in at 1,600 calories. The average adolescent needs only 2,300 to 2,500 calories a day.

Because the causes of excess weight are so complex, dietary changes are just one aspect of treating obesity. Adolescent weight problems can be related to poor eating habits, overeating or binging, physical inactivity, family history of obesity, stressful life events or changes (divorce, moves, deaths, and abuse), problems with family and friends, low self-esteem, depression, and other mental health conditions.

**Teens are consuming more calories, but getting less nourishment**

Adequate nutrition during adolescence is particularly important because of the rapid growth teenagers experience: they gain 50 percent of their adult weight and 50 percent of their bone mass during this decade of life.

Dietary choices and habits established during adolescence greatly influence future health. Yet many studies report that teens consume few fruits and vegetables and are not receiving the calcium, iron, vitamins, or minerals necessary for healthy development. Low-income youth are more susceptible to nutritional deficiencies, and since their diets tend to be made up of high-calorie and high-fat foods, they are also at greater risk for overweight or obesity.

**Teasing about weight is toxic**

Weight is one of the last sanctioned targets of prejudice left in society. Being overweight or obese subjects a teen to teasing and stigmatization by peers and adults. It can happen at home, at school, on the street—anywhere, even on TV. Ads and programming usually portray the overweight as the target of jokes, perpetual losers, and not as smart or successful as their thinner counterparts.

Teasing by family members, including parents, is surprisingly common, perhaps because family members mistakenly believe they are being helpful when they draw attention to someone’s size or harass them about what they are eating. When they label their overweight adolescents with such epithets as “greedy,” “lazy,” or “little piggies,” parents and siblings become an integral part of the problem.

A 2003 study of nearly 5,000 teenagers in the Minneapolis area found that 29 percent of girls and 16 percent of boys were teased by family members and one-third of the girls and...
one-fourth of the boys had been teased by their peers about their weight. Weight-based taunting is not harmless. Adolescents in the study saw the teasing as having a greater negative impact on their self-image than did their actual body size. Teasing should be taken seriously and never tolerated at home, in school, or in the community. Policies have helped to establish norms making ethnic slurs unacceptable. Perhaps similar policies can be formed to send a clear message that bullying people about body shape is not sanctioned in the schools or the community.

**What can be done?**

Young people can conquer weight problems and get adequate nutrition with a combination of a healthful diet, regular physical activity, counseling, and support from adults and peers. For severely obese teens, medication or bariatric surgery is sometimes prescribed to supplement weight management efforts. While proper diet and exercise improve physical health, parents and caregivers can also enhance mental health by emphasizing the overweight teen's strengths and positive qualities. After all, the measure of a young person's worth is far more than the numbers on the scale.

Some heavier adolescents will lose excess weight through positive lifestyle changes and through the normal growth spurts of puberty that make their bodies taller and leaner. In other cases, obesity becomes a life-long struggle.
Eating healthy foods in right-sized portions and exercising are lifelong habits, not temporary fixes. During growth spurts, adolescents do need a lot of calories, and the classic portrait of a teenager as a bottomless pit—someone who can consume volumes of food and burn it all off—seems to hold true. These increased calories should come from healthy foods because teens need more nutrition as well as more calories. Learning to pay attention to cues of fullness from the body, as opposed to eating mindlessly, will help teens avoid a habit of overeating in later years when their metabolism inevitably slows down.

Adults can help control what happens in the home, schools, and neighborhood when it comes to eating and exercise. One of the best ways adults can influence young people is by changing their own eating and exercise habits. Adults can help young people establish healthy habits by:

- Not skipping breakfast.
- Eating fruits, vegetables, lean protein, and whole grains.
- Cooking dinner at home using fresh, whole foods.
- Not buying or drinking beverages with added sugars.
- Building exercise and physical activity into one’s own daily routines and encouraging one’s children to join them.

- Not inappropriately encouraging youth to lose weight.

Weight gain accompanies puberty: teens grow in height, boys develop muscle mass; girls develop breasts and hips; and both boys and girls can put on body fat before a growth spurt. Adults should understand normal physical development (see the Physical Development chapter) to avoid putting undue pressure on an adolescent to be a certain size or weight.

For additional resources, please refer to *The Teen Years Explained: A Guide to Healthy Adolescent Development*. Science-based and accessible, this guide is a practical and essential resource for parents and all people who work with young people.

“For more information, contact:
Beth Marshall, CHES, DrPH
bmarshal@jhsph.edu

Center for Adolescent Health
Johns Hopkins Bloomberg School of Public Health
615 N. Wolfe St. E4610
Baltimore, MD 21205
Telephone: 443 287 3008
www.jhsph.edu/adolescenthealth

“Add this book to the ‘must-read’ list.”
—Karen Pittman, Forum for Youth Investment

ACKNOWLEDGEMENTS
This publication is an excerpt from *The Teen Years Explained: A Guide to Healthy Adolescent Development* [Authors: Clea McNeely, MA, DrPH and Jayne Blanchard]. The Guide was made possible by funding from the Centers for Disease Control and Prevention (CDC) to the Center for Adolescent Health at the Johns Hopkins Bloomberg School of Public Health, a member of the Prevention Research Centers Program (CDC cooperative agreement 1-U48-DP-000040). We would also like to thank the Charles Crane Family Foundation and the Shapiro Family Foundation for their support for the Guide.