CME CREDIT

TAKE-HOME POINTS FROM LECTURES BY CLEVELAND CLINIC AND VISITING FACULTY

Supersized America: Help your patients regain control of their weight

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ABSTRACT

With 64-ounce sodas and "supersized" fast food on nearly every street corner, America has become the land of the obese. Despite disheartening statistics regarding the success of weight-loss plans, patients are more likely to take steps to lose weight if encouraged to do so by their primary care physician.

FEW PHYSICIANS take the time to address the issue of obesity with their patients. In a survey conducted by Shape Up America!, only 30% to 40% of physicians reported discussing diet and exercise with their obese patients.

This is unfortunate, because America is getting fatter. The average body mass index (BMI) in this country has been creeping up for decades, and the prevalence of obesity (BMI ≥ 30) now stands at 30.5%, compared with 22.9% a decade ago.[1] Obesity contributes to about 300,000 deaths a year,[2] and costs the health care system an estimated $117 billion annually—about half of that due to diabetes treatment.[3]

Even though many physicians are pessimistic about changing their patients' behavior, they can have an enormous impact on their patients' lifestyle choices. A study by the Centers for Disease Control and Prevention (CDC)[4] showed that the number of patients who reported exercising regularly climbed from 50% to 75% after their physician advised them to.

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NEEDED: PHYSICIAN REIMBURSEMENT FOR TREATING OBESITY

A reason that physicians do not talk about obesity much is that they do not get reimbursed for it. Remarkably, the Centers for Medicare and Medicaid Services does not define obesity as a disease, and therefore Medicare does not pay for its treatment unless the patient develops complications of obesity, such as type 2 diabetes or hypertension.

This must change. A 2000 decision by the Internal Revenue Services now allows taxpayers to deduct some of the costs of weight loss and weight control programs, a hopeful development.

BIG AND GETTING BIGGER

Several trends are contributing to the epidemic of obesity: greater caloric intake, insufficient physical activity, and increasing sedentary behaviors due to greater use of the automobile, computers, and other technology that has changed the American lifestyle.

Out-of-control calories

More American food dollars are being spent outside the home than ever before. This removes control of portion sizes from parents and gives it to marketers.

Serving sizes have grown in the last few decades. For example, a bottle of Coca-Cola once contained an average of 6.5 ounces; now it contains 20 ounces. Popular 64-ounce sodas can pack a whopping 800 calories. That means that a child who needs 1,500 calories a day could get 800 of those calories from just one drink.

At the same time, children are drinking less of healthy beverages, such as milk. The

Despite pessimism, physicians can have an enormous impact on lifestyle choices

US Department of Agriculture's Continuing Survey of Food Intake of Individuals, reported by the Center for Science in the Public Interest,[5] found that in the 1970s boys drank about 16 ounces of milk a day, which decreased to 10 ounces by the 1990s.

"Supersized" fast food is a slick marketing strategy that contributes to overeating; a study by Rolls et al[6] has shown that portion sizes affect the amount of food consumed, starting at about age 5.

What is a "portion," anyway? The US Food and Drug Administration has one system, the US Department of Agriculture has another, and the sizes listed on food containers have no relation to the size of the container. To help people navigate the morass of portion sizes, Shape Up America! developed a portion-control tutorial available on our Web site (**www.shapeup.org**).

Americans are also eating a lot of the wrong things. Fruits and vegetables, which should make up a significant portion of the diet, are getting short shrift. This is perhaps partly due to the time it takes to wash and chop vegetables, and partly due to their relatively high cost. About one quarter of people earning $15,000 a year or less say they cannot always afford fruits and vegetables, suggesting that agricultural policies that currently support sugar and tobacco may need to be reexamined.

The type of exercise is not important; the amount and frequency is what counts

No time for exercise

Physical activity declines in Americans starting during the teenage years. By adulthood, 25% of adults do not engage in any physical leisure-time activity and another 40% do not meet the US Surgeon General's minimum recommendation of 30 minutes of exercise a day. In fact, only about 19% of women and 22% of men do meet the recommendation.[7]

At the same time, adults are watching more television, up to 4.6 hours a day in low-income groups. People who live in unsafe neighborhoods are also more likely to stay indoors and thus not exercise, particularly senior citizens.[8]

To lose weight and keep it off, patients must both cut calories and *exceed* the US Surgeon General's exercise recommendation. In fact, the Institute of Medicine now recommends 60 minutes of exercise per day for weight management,[9] twice as much as the Surgeon General's recommendation, which is to increase health and decrease cardiovascular risk. The exercise component becomes more important once the weight-loss treatment program has been completed.

The type of exercise is not important, but its appeal to the patient is. Many patients enjoy walking, while others prefer aerobics, golf, running, or gardening. The important thing is that they do it, even by breaking it up into three 20-minute sessions a day.

TRACKING THE EPIDEMIC

The federal government is conducting two ongoing surveys to track the obesity epidemic: a hands-on measurement called the National Health and Nutrition Examination Survey (NHANES), and a telephone survey called the Behavioral Risk Factor Surveillance System (BRFSS).

NHANES is the "gold standard" because it involves direct measurement of the health and nutritional status of people ages 2 months and older in 26 states. It is nationally representative but provides no state-specific data. BMI is used as the indicator of obesity in both the NHANES and the BRFSS because it correlates well with the amount of adipose tissue in the human body.

The BRFSS data are considerably less accurate than the NHANES data, because people tend to understate their weight and overstate their height in telephone surveys. In addition, the greater the person's BMI, the greater the understatement. Nevertheless, in 2000, BRFSS researchers found the prevalence of obesity to be greater than 20% in nearly half the states in the United States.

Problems with the BMI

The BMI is a better measure of obesity than the old height and weight tables. However, the BMI can be inaccurate if clinicians fail to measure height accurately. Since the BMI is body weight in kilograms divided by the square of the height in meters, any error in height measurement is squared and propagated.

Furthermore, the BMI can incorrectly classify people in two ways: by classifying

someone who is healthy and very muscular as obese, or by classifying someone who is obese as healthy.

More common by far are muscular people whose BMI is significantly increased because their weight is increased but who are not fat. The other situation is more common among the frail elderly, whose BMI may appear normal, but who are relatively fat due to muscle wasting.

BMI percentile charts, newly released by the CDC in 2000, should be used in children and teens for assessment rather than weight or BMI. The BMI percentile may be useful to help predict obesity in adulthood as well as the optimal time to intervene.

In a study by Whitaker et al,[10] children ages 3 to 6 who were at the 95th percentile for BMI had a 52% chance of becoming obese as adults; by ages 10 to 15, children at that percentile had an 83% chance of becoming obese. Thus, weight-reduction interventions should target younger children, because those whose BMI remains high in the teen years have a very high chance of becoming obese.

DISEASES RELATED TO OBESITY

In the Nurses' Health Study,[11] researchers collected data on the health and mortality of 115,000 nurses over 20 years. Women with a BMI of 27 or higher had a significantly increased chance of premature death, typically from cardiovascular disease. Mortality rates continued to climb with each increasing BMI unit, with cardiovascular mortality seven times higher in the heaviest women compared with their lean counterparts.

Diabetes

The prevalence of diabetes in the United States is climbing. Most new cases are type 2 diabetes, which is being diagnosed at an alarming rate in children. In 1990, fewer than 4% of pediatric cases of diabetes were diagnosed as type 2; by 2000, that number had climbed to 20%. Of these children, 85% are overweight or obese.[12] The problem is most severe in African American and Hispanic children, who have a much greater prevalence of overweight than their white counterparts.

THE ROLE OF PARENTING IN OBESITY

Data on the influence of parents on children's eating and exercise habits are scanty, but they do suggest that parents' actions have strong effects on their children's behavior. Fisher et al[13] found that young girls ate more fruits and vegetables, which also decreased their fat intake, when their parents also ate those foods. On the other hand, children of parents who pressured their children to eat fruits and vegetables but did not increase their own intake actually consumed less of these foods.

In their recent conference on diabetes in America, Shape Up America! advanced the hypothesis that children are more likely to be obese if their parents have little time to model, teach, or promote proper eating and exercise habits in their kids. A study in Denmark[14] found that parental neglect was a far more powerful predictor of obesity than any of the biological factors the researchers examined. Another study[15] showed that it was more effective to target parents than to target the children directly.

A factor that complicates managing obesity in children is that the heavier the child is, the more likely he or she is to be depressed. We have examined NHANES data and found that up to 30% of obese girls and 20% of obese boys ages 15 to 19 are depressed.

Parenting is a critical factor, yet parents report having less and less time to spend with their children, and the children who are depressed are the most difficult to identify and help.

In adults, calculate the BMI; in children, use the BMI percentile

AN APPROACH TO THE OBESE PATIENT

At a minimum, patients should have their height measured yearly or at least every few years. Weight should be measured and BMI calculated on every visit to assess health risk.

The assessment should include the distribution of body fat; persons who carry more fat in their upper body than in their lower body are at increased health risk. Of course, pregnant women should not try to lose weight, even if obese.

Next, the physician needs to ask questions to assess the patient's readiness to lose

weight. If the patient is ready to follow a plan, treatment options include diet and exercise, plus pharmacotherapy if the patient's risk is high, and surgery if the risk is extremely high.

The patient's progress should be periodically evaluated and monitored. If the patient is not ready to begin a treatment program, a plan to prevent further weight gain should be put into place and the patient's readiness periodically reassessed.

TYPE OF WEIGHT-LOSS PLAN

The key to weight loss is to cut calories through portion control. Busy clinicians can refer their patients to the Shape Up America! web site for tutorials on portion control and other aspects of weight management.

The human body obeys the first law of thermodynamics: to reverse obesity, calories expended must exceed calories consumed. The macronutrient composition of the diet is not the point. Your goal should be to choose a program that takes the long view and teaches healthy eating habits that reduce heart disease and cancer risk as well as weight loss. Whether the patient follows a high-fat, high-protein diet or a low-fat, high-carbohydrate diet, he or she should reduce the number of calories taken in and stick with the program.

Exercise has been repeatedly shown to be essential for keeping the weight off in dieters. Weight regain is almost a certainty if the patient is not willing to exercise. Shape Up America! suggests introducing exercise into your program after improved eating habits have been well established. Help patients understand the amount of exercise needed for successful weight maintenance. Because of the popularity of walking, when they are ready to take this step, refer them to the Shape Up America! 10,000 Steps Program on our web site. Encourage them to purchase a pedometer, keep a log, and bring it to you for reinforcement.

Ongoing follow-up and monitoring by a physician on a regular basis is a key component for weight maintenance.

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