

## The Obesity Epidemic — What Are We to Do?

By Jennifer Bendelius, MS, RD, CDN

**O**besity is considered by many scientists to be an epidemic in our country. At least half of the Nation's people are overweight or unhappy with their current weight. Recent research indicates that more than 33% of American adults are obese, defined as having a Body Mass Index over 30. This alarming statistic represents a 40% relative increase over the last 10 years. The epidemic is not limited to adults, since obesity affects 20% of children in the U.S. What is the result of childhood obesity? Fifty percent of overweight children, and 70% of overweight teens, end up being overweight adults. The percentage of children and teens who are overweight has more than doubled in the last 30 years.

Obesity is determined in children by using the weight-for-height ratio on the National Center for Health Statistics (NCHS) growth charts. A weight-for-height ratio over the 95% percentile is considered obese, a weight-for-height ratio that lies between the 90th and the 95th percentile is considered overweight. These charts are used for prepubertal children. Percentage of desirable body weight (DBW) can also be used to assess pubertal children. For a female, the DBW is determined by calculating 100 pounds for the first 5 feet and then adding 5 pounds for every inch above 5 feet. For a male, the DBW is determined by calculating 106 pounds for the first 5 feet and adding 6 pounds for every inch above 5 feet. For example, a 5'3" female has a DBW of 115 pounds; add 10% for large-framed individuals and subtract 10% for small-framed ones. This is a rule-of-thumb calculation (personally, I think it calculates DBW too low) and does not take into consideration muscle mass — a muscular individual would weigh more than his or her DBW and not be considered overweight. Obesity is defined as 120% or more of DBW, 110% of DBW is considered overweight. It is also important to con-

sider birth weight, weight history since birth, frame size, growth patterns, and family history in determining those at risk for obesity. These factors can aid the school health practitioner in identifying those at risk for current and future weight problems.

One cannot discuss obesity without including the social and emotional problems of the individuals with this chronic condition. Low self-esteem and possible discrimination are additional problems for overweight children and teens. Resources have been included at the end of this article to aid the school health professional in helping deal with the psychological issues of obesity.

A critical problem resulting from childhood obesity is that we as health professionals are starting to see adult-onset diseases occurring in childhood and adolescence. For example, the child whose family has a history of obesity and diabetes is presenting with Non-Insulin Dependent Diabetes Mellitus (NIDDM) as a teenager. This individual will probably have more complications from NIDDM because he or she will have the disease for so many years longer than if it had developed in adulthood.

There are many tactics that can be utilized to help affected children and teens in dealing with their potentially life-threatening condition. A successful weight management program should include all of the following factors:

- modification of diet
- increase in exercise
- change of environment

All play a role in the weight management process. In these individuals, the goal is to attempt to normalize weight by producing very slow weight loss or slowing weight gain. Modifying intake is a more desirable goal than putting a child on a diet. Research indicates over and over again that those individuals who go on a diet lose weight, but resume old eating habits over a period

of time and regain the lost weight. One should think of weight management as a life-long journey, not a destination. It's important for adults and children to make changes that are meant to last a life time, not 2 weeks, 2 months, or even 2 years.

Here are a few suggestions:

- Increase vegetable and fruit intake. This can be achieved in the school setting by increasing the availability of tasty vegetables for school lunch. Fruits and vegetables contain many essential vitamins, minerals, and phytonutrients. All contribute to overall well-being. Furthermore, fruits and vegetables are full of soluble and insoluble fiber, which aids in increasing satiety without ingesting lots of calorie-rich food.
- Increase water intake, decrease soda intake.
- Decrease availability of processed foods. An orange is more healthful and has less calorie content than a glass of orange juice. Regular oatmeal is more healthful and less fattening than a pop tart. The whole food is almost always preferable to a packaged counterpart.
- Do not deprive children of certain foods. Research indicates that this only increases the child's desire for the forbidden food. Rather than eliminating certain foods, try limiting the food to twice a week.
- Watch portion sizes. Try limiting servings to one or two portions. Rule of thumb is a portion size is no larger than a deck of cards.
- Don't order a child to clean his or her plate.
- Increase physical activity. Put limits on the amount of television watched. Have children participate in sport activities.
- Adults (school nurses, teachers, parents) act as role models. This is critical to success of any weight management

program. Research indicates that it's not what adults say that makes a difference, it's what they do; if we want our kids to eat more vegetables then we need to eat more vegetables. If we want them to exercise, we need to exercise.

Successful weight management improves self-esteem, decreases morbidity, and increases vitality. So let us head to our local farm market or the produce section of our grocery stores, start exercising, and begin the fight against obesity!

For more information and programs on the topic try these Web sites:

The American Dietetic Association—  
Nutrition Resources

<http://www.eatright.org/nuresources.html>

Committed to Kids Pediatric Weight  
Management Program

<http://www.committed-to-kids.com>

Dole Five A Day  
<http://www.dole5aday.com>

Kids Health – Food and Fitness  
<http://www.kidshealth.org>

USDA's Food and Nutrition  
Information Center  
<http://www.nal.usda.gov>



#### RESOURCES

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## THE SCHOOL NURSE'S ROLE IN OBESITY TREATMENT AND PREVENTION

By Annette Lavallo, RN, MPS

This past September, *Newsweek* devoted a special issue to health. Included in that issue was a two-page report about the Harvard Nurses' Health Study. The study began in 1976 with the recruitment of 122,000 nurses, and continues now with 100,000 of those participants still reporting every 2 years. Over the years of the study, nurses have been asked a variety of health-related questions: medical history, diet, amount of exercise, family history, extent of use of drugs, alcohol, medications, vitamins, holistic therapies, and social connections. Subjects submitted toenail clippings and blood samples. The results of these studies seem simplistic, but they are statistically valid:

- Eat healthfully
- Maintain a non-obese weight
- Don't smoke
- Exercise
- Take a multivitamin
- Maintain a social life

Four of those areas are food/nutrient/weight related! I think this points out in a research-validated way the importance we should all place on nutrition and proper weight in our lives and in our school-based practice. I have looked at my own 13-year school nursing practice and canvassed my colleagues in our district. The consensus is that there is no foolproof way to address the problem of obesity among students. The staff in my school looks pretty good; the students look rather overweight! The conclusion that I have drawn from my interactions with students, teachers, and families, and a study of the school environment, is that we can divide our efforts into several parts:

1. Eat healthfully yourself; seek to enjoy eating that way. Exercise. Take a multivitamin. (In short, walk the walk and talk the talk — you are a role model.)
2. Promote healthful *school* breakfasts and lunches, *school* snacks, and *school* party foods.
3. Teach or facilitate others to teach about nutrition in a meaningful way, both formally and informally.
4. Support the physical education curriculum and promote active lunchtime recess and active play after school.

5. Counsel and/or refer overweight children; involve families.

Personally, I have not had much success in helping obese children until the family decides to make a lifestyle change. This is a change from within. We can teach, we can cajole, we can plead, we can refer, but until the family takes the lead role in finding solutions they can live with, I think we have little effect. It has also been my experience that when the mother (or major care taker) of the family decides to lose weight, eat healthfully and exercise, she can set the pattern for the entire family to follow. I have also met some families in which obese children have relatively slender parents. Provided there is no underlying medical condition to consider, I think this is a parenting issue, not solely a nutritional one. It seems that for some parents setting limits of any kind is very difficult.

Some other areas are as vast and wide open as we would like them to be; they will depend on your own practice and the needs of the place and time. Personally, I have worked with the school's food service to increase fresh fruits in the school with some success (see *School Nurse News*, 18(2) and 18(3)). I encourage active games at recess and support the athletic program of the school. I also teach classes about foods; the most important component of those classes is the healthful things I bring for the children to make and then try. We have a closed-circuit television station at Kennedy School; I appear regularly to promote healthful things. When the station is not "broadcasting," it carries a series of repeating messages including a section entitled "Nurse's Notes" where the children are reminded of healthful things. These are some of my current endeavors; they change from time to time; they will not necessarily fit into your situation.

I would be delighted if you would e-mail me with whatever you have found to be most successful. You can reach me at [annielavallo@prodigy.net](mailto:annielavallo@prodigy.net). I will compile these tried and tested ideas for our colleagues. Collaboration, after all, is a necessary and powerful tool, since most of us work quite independently.

#### ABOUT THE AUTHOR

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