

## Childhood Obesity: Emerging Challenge

Ten percent of children, or at least 155 million youngsters worldwide, are overweight or obese(1). What was once a health problem for the industrialized world with its high calorie foods, labor-saving devices and dwindling levels of physical activity has now spread to developing countries. Countries like Thailand, Iran, Nigeria and Brazil have all reported unprecedented levels of obesity with substantially rising trends every year. In South Africa, about 25 percent of girls from 13-19 are overweight or obese(2). The epidemic of obesity sits alongside the problem of undernutrition and infections in India thereby creating a greater burden of nutrition-related ill health among our children.

### INDIAN CHILDREN ARE FATTENING

The problem of childhood obesity is now sweeping our nation. Studies among school children in different parts of the country have demonstrated increasing prevalence of overweight and obesity, with great disparity between rural and urban parts of country. The prevalence of overweight was 37.5% in urban Delhi and 8% in rural Haryana(3). The prevalence of overweight and obesity is higher in upper socioeconomic class (17.2% overweight and 4.8% obese) as compared to lower socioeconomic class (4% and <1%, respectively). Although the prevalence of obesity may not be as high as in the West but the body composition and metabolism of Indians (Asians), with a 3 to 5% higher body fat and central location of body fat for the same BMI makes them more prone to its ill effect(4).

### CHANGING FOOD AND HOME ENVIRONMENT

Over the past few decades, the food and home environments have changed tremendously. The change in diet, a decrease in physical activity and too much time spent in front of computer or television screens have been blamed for the growing number of overweight children, the world over. Increasing energy intakes with decrease in energy expenditure due to decreased physical activity or increased

sedentary behaviors result in significant changes in bodyweight.

Our modern eating environment has had an effect on the way children eat. The changing environment by making fast food outlets conveniently available has promoted consumption of energy dense foods high in fat and sugar. The traditional micronutrient rich foods are being replaced by energy dense processed micronutrient poor foods (snacks) like burgers, pizza, chowmein and cold drinks and fruit drinks in greatly increased portions. TV watching, video games and internet gazing, now important activities of children at home, leaves hardly any time to get involved in leisure time physical activity. Due to intense academic competition to perform better at school, children are hardly seen at the playground.

### WHY OBESITY IS A CONCERN

Obesity affects both the mental and physical health. The potential medical complications like hypertension, coronary artery disease, diabetes mellitus, dyslipidemia and psychological issues of depression, poor self-image, and difficulties in both the home and social environment (including school) add to the woes. Obesity also contributes to global warming as overweight people require more fuel to transport them and eat more food.

### ADOPTING HEALTHY LIFESTYLES

It is imperative to intervene early in childhood and adolescence to prevent and/or reverse the effects of overweight and poor eating habits. The home environment has a powerful influence on the health of a child. The parents have a unique opportunity to be a positive influence on their children's eating habits.

(a) *Healthy eating pattern*: Emphasis should be laid on nutrition rather than 'dieting'. Maintain healthy components of traditional diets such as fruits, vegetables and whole grain cereals and guard against energy dense, fatty, salty and sugary food.

(b) *Increased physical activity*: Dietary changes alone are often not enough to help a child lose weight. Taking part in exercise should be encouraged from an early age to promote self-esteem

and help children function optimally, both physically and mentally. The enjoyment of sport at an early age, and the influence of parents, friends, teachers, coaches and schools combine to shape lifelong attitudes and participation in sport and exercise. In general, moderate to vigorous activity for at least one hour a day may be a practical recommendation for all school going children.

(c) *Decreasing sedentary activities:* These activities lead to motion deprivation, and children spend hours doing little more than sitting down. These inactive and prolonged pastimes should be discouraged. Television viewing should be restricted to not more than one hour a day, and use of computers, telephone conversations should be reduced.

#### INTERVENTIONS

*Role of Schools:* The schools should formulate and adhere to physical-education and activity requirements and standards. Schools should facilitate changes to increase physical activity and parent teacher associations can help to educate parents as to the dangers of childhood obesity. Schools should decrease consumption of unhealthy foods and beverages. Introduction of 'nutrition and physical education' in the school curriculum with these activities should become compulsory and/or a 'scoring subject' with marks to be added to total grades. The parents/students are then likely to give the required attention and time to these activities in this competitive world of academics.

*Role of Family:* Most experts agree that helping your child lose weight is a family affair. Everyone should be involved in planning meals, buying food and coming up with ways to be active together. Families should also make physical activity a family priority and establish rules or guidelines that encourage activity and limit leisure time in front of the TV or computer. Changing your child's eating and exercise habits means changing your own as well. After all, you're in charge of what your child eats at home and how much exercise he gets when he gets home from school. Plus, you are a role model. If you exercise and eat healthy, your child shall follow suit.

*Role of Government authorities:* Programs having a bearing on the diet and lifestyle of children should be devised. Regulate fast food advertisements aimed

at children and insist on food labeling. Departments can influence the food industry to reduce the levels of fat and sugar in foods targeted at children; and parent teacher associations can help to educate parents as to the dangers of childhood obesity. Schools encourage a responsible approach to marketing of these foods.

*Role of Pediatricians and IAP:* It is important for us to think of 'prevention of obesity' at all visits and incorporate relevant health education. BMI should be calculated and above 85th centile should be advised about lifestyle interventions while children with BMI >95th centile should be screened for co-morbidities. Encourage gradual weight control rather than crash dieting. The role of pharmacotherapy is still unclear.

The report on childhood obesity, called for a global strategy to stem the rising number of obese children everywhere(5). A global strategy means keeping children active both at school and home, and making sure that foods that are energy-dense be limited. We need urgent action and the time for action is now. It's time to stop talking and start walking.

**R K Agarwal,**

*President IAP 2008,*

*R K Hospital,*

*5/A, Madhuban, Udaipur 313 001, India.*

*Email: rk\_hospital@hotmail.com*

#### REFERENCES

1. Lobstein T, Baur L, Uauy R. Obesity in children and young people: A crisis in public health. International Obesity Task Force Report to WHO. London: IASO; 2004.p. 12-14.
2. Obesity: Preventing and managing the global epidemic. WHO Technical Report Series 2000; 894; 113-114.
3. Chadha SL, Gopinath N, Shekhawar S. Urban-rural differences in the prevalence of coronary heart disease and its risk factors in Delhi. Bull WHO1997; 5: 31-38.
4. Yajnik CS. The life cycle effects of nutrition and body size on adult adiposity, diabetes and cardiovascular disease. Obes Rev 2002; 3: 217-224.
5. Lobstein T, Baur L, Uauy R for the IOTF Childhood Obesity Working Group. Obesity in children and young people: a crisis in public health. Obes Rev 2004; Suppl 1: 4-104.