

Obesity among Youngsters – An Epidemic?

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INTRODUCTION



What is Obesity and how it's rising among youngsters?

“Obesity can be defined as having too much body fat, a disorder involving excessive body fat that increases the risk of health problems. Obesity often results from taking in more calories than are burned by exercise and normal daily activities.”

If we talk about childhood obesity, it is being observed that with the changing lifestyle of families and increasing hours of inactivity due to television, video games, and computers, which in turn is replacing outdoor games and other social activities. As described by WHO *“obesity is one of today's most neglected public health problems. Following the increase in adult obesity, the proportions of children and adolescents who are overweight and obese have also been increasing”*. **Dr. Mahesh Balsekar** who is a **Paediatric** said in his article about **Childhood Obesity** *“With 14.4 million obese children, India has the second highest number of obese children in the world, next to China”*. The biggest consequence that we see of childhood obesity is its tenacity into adulthood with all its health risks. The health risks include cardiovascular diseases, diabetes, osteoarthritis, gallbladder disease, and some sex hormone sensitive cancers. It is more likely to persist when its onset is in late childhood or adolescence.

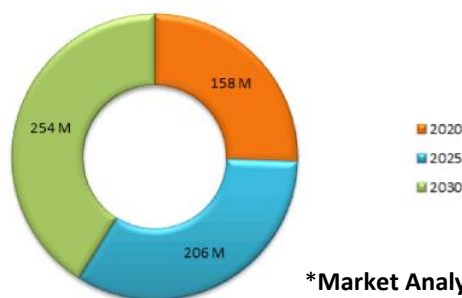
What's causing it? When a child consumes more food than what is required for his/her normal growth and activity then the extra calories get stored in fat cells by our body for later use but if this activity continues over time, it usually develops more fat cells and may further cause obesity. The Urbanization and Globalization is causing various lifestyle changes among us and in order to cope up with the things we as an adult or youngster are more tend towards junk foods and less of physical activities. These modern foods are rich in fats and sugar and can result in improper diet balance which may indirectly leads to obesity. Nowadays children are surrounded by many easy to make foods or instant food items that make it easy to overeat and harder to be active and also such foods are usually high in fat and sugar content. As a result such foods with high calories lead to more calories intake before you feel full. Social media, online marketing, TV commercials and other screen ads promotes such unhealthy food choices in a way that it looks delicious by increasing the cravings. Such "Screen time" activities which means - watching television, gaming, texting, and playing on the computer require comes under sedentary work which requires little or no energy to do it and which in turn leads to no physical moment and activity among youngsters making them gain fat and weight.

Some other environmental factors can also lead to obesity. Parents being less educated about proper and healthy diet for

their children, emotional love sharing by giving their child comfort through food or using it as a reward to a child and such habits occasionally gets adaptive as they grow and tends to become a habit which may lead to gluttony. Many times these habits aren't smoothly left across and become a lifestyle itself. Genetics, medical conditions, and emotional complications can also increase a child's pitfall for obesity. Hormone disorders or low thyroid function, and certain medications, such as steroids or anti-seizure medicines, can increase a child's appetite. Over time, this increases their pitfall for obesity. An unhealthy focus on eating, weight, and body image can lead to an eating disorder. Obesity and eating disorders frequently occur at the same time in teenage girls, who may not be unhappy with their body image.

Two in three children with obesity will remain obese as adults and at major risk for adult lifestyle diseases. India is likely to become the diabetes capital in the world. It is predicted that evolving habits and the growing popularity of junk food will lead to an increase in childhood obesity over the next decade. A specific prevalence is expected in the developing countries where traditional diets are becoming westernized and starch, sugar, oil and fat consumption rates are increasing. According to the estimation of the Atlas of Childhood Obesity of the World Obesity Federation 250 million children and adolescents by 2030 will be obese.

Over 250 Million Kids Will Be Obese By 2030
 Predicted number of children/adolescents aged 5-19 living with obesity worldwide



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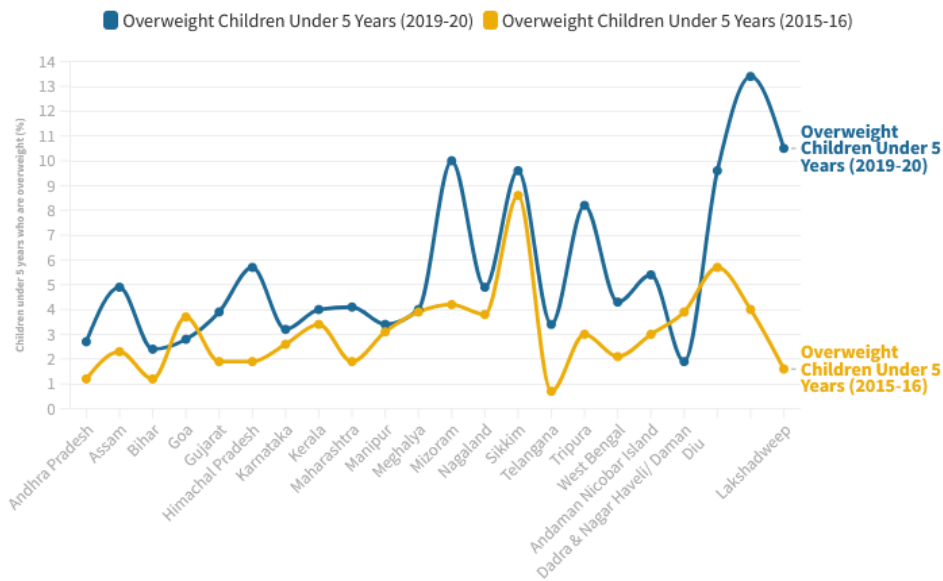
Indians are racing above average in the prevalence of overweight people. A report by National Centre for Biotechnology Information (NCBI) predicted that by 2030, 27.8 percent of all those overweight in the world would be Indians. The National Family Health Survey (NFHS) 5 survey released by Ministry of Health and Family Welfare, conducted in the year 2019-20 also found a drastic rise in obesity among children less than five years of age in 20 out of the 22 states, where the study was conducted.

According to the NFHS-5 data, several states and Union Territories, including the bigger states/UTs like Maharashtra, Gujarat, Mizoram, Tripura, Lakshadweep, Jammu and

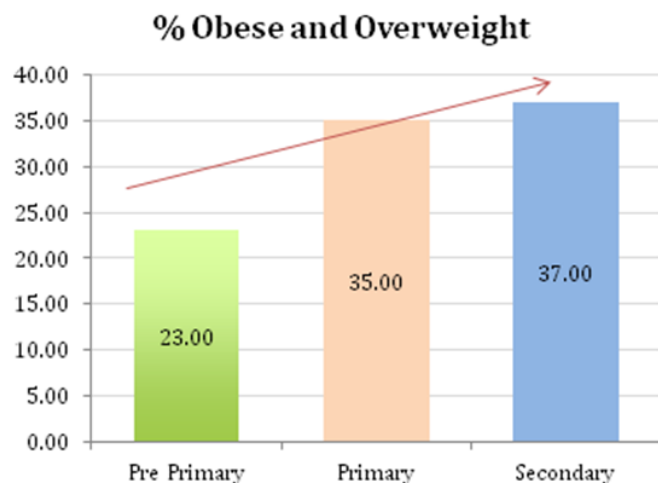
Kashmir, and Ladakh, have shown a several fold increase in the percentage of obesity among children below five years of age in comparison to NFHS-4 conducted between 2015 and 2016.

In Maharashtra, the increase of children under 5 years who are overweight is up from 1.9 % in 2015-16 to 4.1 % in 2019-20 whereas, in Gujarat it has increased from 1.9 % to 3.9 %. In Ladakh about 13.4 % under the age of five were found to be obese which was highest among the 22 states and Union Territories surveyed, followed by Lakshadweep at 10.5%, Mizoram 10%, Jammu and Kashmir, and Sikkim 9.6% each.

Obesity Trends In Children Under 5 Years



Health screenings completed by Jarma Wellness LLP at different Schools across the country indicated a much higher weight related issues in the screened students, what is to be noted is that the Percentage of obese students seem to increase with age:



So, what are the preventives one as parent or guardian must take to control obesity among the young's?

BMI – BODY MASS INDEX - Body mass index (BMI) is a person's weight in kilograms divided by the square of height in meters. It is an inexpensive and easy-to-perform method of screening for weight categories that may lead to health problems. BMI is age and sex specific and is often referred to as **BMI-for-age** in case of children and teens. In children, a high amount of body fat can lead to weight-related diseases like obesity. A high BMI indicates high body fat. *BMI does not measure body fat directly, but BMI is correlated with more direct measures of body fat.*

$$BMI = \frac{Weight (kg)}{Height^2 (m^2)}$$

BMI for children - Kids can have a high BMI if they have a large frame or a lot of muscle, not excess fat. And a kid with a small frame may have a normal BMI but still can have too much body fat. BMI usually gets a less accurate during puberty. It's common for kids to gain weight quickly during puberty and see their BMI go up. "A child is said obese if his/her BMI is at or above the 95th percentile for age, gender, and height". While BMI is an important indicator of healthy growth and development, BMI is not a perfect measure of body fat. One must concerned a doctor as well for tracking the body weight.

BMI (kg/m2)				
GROUPS -	8-9 Yr	9-10 Yr	10-11 Yr	11-12 yr
Obese				
Boys	>22.0	>22.5	>22.9	>23.5
Girls	>21.0	>21.6	>21.6	>23.1
Normal-weight				
Boys	19.3-15.0	19.7-15.2	20.3-15.4	21.0-15.8
Girls	18.8-14.6	19.3-14.9	20.1-15.2	20.9-15.8

**BMI, Children among age group 8 – 12 yrs*

Preventing childhood obesity –

- Children must be told that eating meals and snacks in front of TV is not a healthy practice.
- Make them build a healthy diet by avoiding foods with fewer high-calories and less or no nutrients. Also make them understand that these kinds of snacks are not everyday food as they contain high fats which make them more likely to overeat.
- Teach children about nutrition and healthy diet, and involve them in trying a wide variety of foods.
- Plan healthy snacks at specific times and cook most of them at home.
- Include two food groups, for example, banana wedges and whole grain cookies.
- Plan a healthy diet focusing on maximum nutrition like carbs, protein, minerals, fibers, calcium etc from a range of foods like fruits, vegetables, grains, low-sugar cereals, low fat dairy products, and lean meats and meat alternatives.
- Avoid excessive consumption of packaged fruit juice with calories but fewer nutrients than the fruits they come from. A reasonable amount of juice is 4-8 ounces per day.

- Encourage physical activity. As a family support your child's organized physical activities, participate with them in their physical activities on a regular basis, such as walks, bike rides, hikes, and active games.

CONCLUSION

Childhood obesity is increasing day by day and a very less among us are really aware about this. We don't take obesity as a disease even today but it is, and if a child is suffering from obesity his/her parent must take extra care regarding their diet and physical activities. If obesity isn't took care of as child then as an adult if is nearly impossible to treat is naturally. Knowledge about the BMI scale must be encouraged among the people to track down their health as well as their child's health and must be in contact with your doctor. There are several daily basis preventives which can help to balance the weight like encouraging physical activities and excluding no nutrient foods from the diet etc. If we took care of these on our daily basis we can help our improving the rates of childhood obesity which may turn into an epidemic if not controlled soon.

REFERENCES

Singh M, Sharma M. Risk factor for obesity in children. *Indian Paediatr.* 2005;42:183–5.

Wong JP, Ho SY, Lai MK, Leung GM, Stewart SM, Lam TH. Overweight, obesity, weight-related concerns and behaviors in Hong Kong Chinese Children and adolescents. *Acta Paediatr.* 2005;94:595–601.

Obesity: Preventing and managing the global epidemic. Technical Report Series No. 894. Geneva: WHO; 2000. *World Health Organization.*

Cowley MA, Brown WA, Considine RV. Obesity: the problem and its management. In: Jameson JL, De Groot LJ, de Kretser DM, et al, eds. *Endocrinology: Adult and Pediatric.* 7th ed. Philadelphia, PA: Elsevier Saunders; 2016:chap 26.

Gahagan S. Overweight and obesity. In: Kliegman RM, St. Geme JW, Blum NJ, Shah SS, Tasker RC, Wilson KM, eds. *Nelson Textbook of Pediatrics.* 21st ed. Philadelphia, PA: Elsevier; 2020:chap 60.

Dr. Mahesh Balsekar, Peadiatric Medicine. Childhood Obesity, *Narayana Health Care* (narayanahealthcare.org)

Garrow, J.S. & Webster, J., 1985. Quetelet's index (W/H²) as a measure of fatness. *Int. J. Obes.*, 9(2), pp.147–153.

Freedman, D.S., Horlick, M. & Berenson, G.S., 2013. A comparison of the Slaughter skinfold-thickness equations and BMI in predicting body fatness and cardiovascular disease risk factor levels in children. *Am. J. Clin. Nutr.*, 98(6), pp.1417–24.

Wohlfahrt-Veje, C. et al., 2014. Body fat throughout childhood in 2647 healthy Danish children: agreement of BMI, waist circumference, skinfolds with dual X-ray absorptiometry. *Eur. J. Clin. Nutr.*, 68(6), pp.664–70.

Mary L. Gavin, MD , Nemours Kids Health, *Body Mass Index (BMI):* <https://kidshealth.org/en/parents/bmi-charts.html>

Mealtime Memo for child care. *A fact sheet for the Child and Adult Care Food Program, from the National Food Service Management Institute, The University of Mississippi*