

# Obesity: A worldwide Epidemic

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**O**besity is a serious health problem of 21st century and is an important cause of morbidity and mortality in adults as well as adolescents and children [1].

The prevalence of obesity has reached epidemic proportions in many countries around the World and as per WHO estimates, more than one billion adults are overweight and over 300 million are obese [2].

Worldwide, obesity represents a major epidemic as its prevalence is increasing both in developed and developing countries. The rising prevalence is an issue of great concern in particularly in children due to adverse health problems associated with it. Obesity in early years of life increases the risk of obesity in later life with a higher risk of developing type-II diabetes, arthritis, cardiovascular diseases and metabolic syndrome.

Basal Metabolic Index (BMI) is commonly used to define overweight and obesity in adults. Individuals with a BMI of 20-30 are labeled as overweight and more than 30 are called obese in most of the Western societies. However, it is also recognized that BMI association with morbidity and mortality risk may vary in different ethnic groups [3].

Obesity is considered a multifactorial and heterogeneous disease due to complex interaction of genetic and environmental factors. Studies involving genetic and molecular analysis of obesity have identified major genes involved in the regulation of energy expenditure and energy intake. Interaction of many genetic variants with one another and with environment predisposes to weight gain and ultimately leads to obesity in most of the cases [4].

Quite often, obesity results from chronic energy surplus with dietary caloric intake exceeding energy expenditure. Within populations, the interaction between environmental and individual factors including genetic makeup explains variability in body size between individuals.

Our day by day increased reliance on technology has reduced work-related physical activity and unlimited supply of convenient, relatively inexpensive,

highly palatable energy dense foods is leading us to overweight and obesity in our current environment.

Traditional treatment strategies and public health interventions aimed at reducing the incidence of obesity are proving inadequate in controlling the global epidemic of this condition. All countries are searching for answers about how to reverse the rising tide of adult and childhood obesity.

Despite many obesity preventive strategies recommended and adopted at individual and national level, the epidemic of obesity continues to rise in segments of populations in developed and developing countries.

The only effective approach may be for governments to implement radical policy change, to regulate food industry and food consumption in a similar way to that of tobacco and alcohol industry by banning attractive food advertisements and taxing certain types of foods. At the same time, we must inspire people to make behavior changes within the current environment that are sufficient to resist the push of environmental factors toward weight gain. Increasing physical activity may be the strategy of choice for public health efforts to prevent obesity.

Appropriated interventions and collaborative efforts at individuals, health professionals, industry and government level may help to reduce the obesity epidemic and its deadly consequences under present circumstances.

## References

1. Engin A. The definition and prevalence of obesity and metabolic syndrome. *Adv Exp Med Bio* 2017;960:1-17.
2. [www.who.int/nut/obs.html](http://www.who.int/nut/obs.html).
3. Weng X, Liu Y, Ma J, et al. Use of body mass index to identify obesity related metabolic disorders in Chinese population. *Eur J Clin Nutr* 2006 60:931-37.
4. Locke AE, Kahali B, Berndt SI, et al. Genetic studies of body mass index yield new insights for obesity biology. *Nature* 2015;518:197-06.

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