

Higher BMI in Childhood: The Contributory Factor For Type 2 Diabetes and Cardiovascular Disease in Adulthood

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Abstract

Aim: To study obesity related risks of cardiovascular diseases (CVD) and type 2 diabetes in children. **Method:** Present study was carried out on 2048 children (boys and girls). BMI categories help to diagnose risks for cardiovascular disease and type 2 diabetes in children. **Results:** In this study of 2048 children, 6.84% are exposed to moderate risk of cardiovascular Diseases (CVD) and type 2 diabetes and 1.66% are at high risk of CVD and type 2 diabetes. The risk is higher in the children of urban population as compared to that of rural population. The risk is also higher in boys than in girls. **Conclusion:** There is the tendency that obese children may grow into obese adults. These risks increase with increasing age of the children. More emphasis should be made on the maintenance of normal weight amongst in order to prevent future health risks.

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Introduction: BMI is a useful parameter of overweight and obesity. It is an estimate of body fat and a good measure to diagnose risk for diseases that can occur with overweight and obesity. BMI is the standard metric for determining normal-weight, overweight and obese categories. Childhood obesity may also lead to significant health problems like type -2 diabetes, asthma, sleep apnea, psychological stress, including low self-esteem caused by the social stigma of being obese (Ul-Haq et al, 2014 and Nuttall et al, 2015). People with BMIs higher than 30 are at increased risk of dying from various chronic diseases. Childhood obesity has emerged as one of the most serious public health issues of the 21st century (Malik et al, 2013). Epidemiological studies have shown a substantial increase in the risk of disease with elevated BMI (i.e. severe or morbid obesity) (Kitahara et al, 2014). Obese children are more likely to become obese adults. Adult obesity is associated with a number of serious health risks.

Materials and Method

2048 Children and adolescent aged 10-19 years were selected randomly for questioning regarding the different aspects of epidemiology. Body mass index or BM, was measured by the criterion used by Lambert Adolphe Jacques Quetelet, a Belgian astronomer, mathematician, statistician and sociologist. BMI Categories were used to determine various health risks (WHO Singapore declaration on Asian Population, 2005):

<18.5	Nutritional Deficiency and Osteoporosis
18.5-22.9	Healthy Range
23.0-27.5	Moderate risk for cardiovascular disease and Type 2 diabetes
>27.5	High risk for cardiovascular disease and Type 2 diabetes