



Obesity Related Health Problems (Review)

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ABSTRACT

Obesity is a major contributor to the global burden of chronic disease and disability. It is existing in developing countries with under-nutrition, as well as in developed countries. Increased consumption of more energy-dense, nutrient-poor foods with high levels of sugar and saturated fats, combined with reduced physical exercise leads to obesity. It poses a major risk for serious diet-related chronic diseases, including type 2 diabetes, cardiovascular disease, hypertension and stroke, and certain forms of cancer. While genes are important in determining a person's susceptibility to weight gain, energy balance is determined by calorie intake and physical activity. Economic growth, modernization, urbanization and globalization of food markets are driving the obesity epidemic. With the increase of incomes people are using diets high in complex carbohydrates, higher proportion of fats, saturated fats and sugars. Also due to usage of automated transport, latest technologies the life has become more passive, this reduction of physical activities leads to obesity.

KEYWORDS

obesity, fats, balanced diet, physical exercise

Studies have confirmed that increasing degrees of overweight and obesity are important predictors of decreased longevity (Lew, 1985). Obese individuals are at particular risk of negative health consequences, with certain ethnic populations carrying different levels of risk (McKeigue et al., 1991).

The risk of death within 26 years increased by 1% for each extra pound (0.45 kg) increase in weight between the ages of 30 years and 42 years, and by 2% between the ages of 50 years and 62 years (Hubert, 1986). Obesity is commonly assessed by using body mass index (BMI), defined as the weight in kilograms divided by the square of the height in metres (kg/m²). BMI of over 30 kg/m² is considered to be as obese and people with a BMI below 18.5 kg/m² tend to be underweight. Recent studies have shown that people who were undernourished in early life and then become obese in adulthood, tend to develop conditions such as high blood pressure, heart disease and diabetes at an earlier age and in more severe form than those who were never undernourished.

The long term consequences of obesity are hypertension, diabetes, endocrinal disturbances, sleep disorder, behavioural problems, adverse metabolic effects on blood pressure, cholesterol, triglycerides and insulin resistance. Raised BMI also increases the risks of cancer of the breast, colon, prostate, kidney and gallbladder. Chronic overweight and obesity contribute significantly to osteoarthritis, a major cause of disability in adults. The non-fatal, health problems associated with obesity include respiratory difficulties, chronic musculoskeletal problems, skin problems and infertility.

Following Factors influence obesity;

Genetic factors-Several genes have been associated with human obesity or its metabolic complications. They include receptors that are important in mechanisms of thermogenesis as well as those involved in appetite regulation.

Energy consumption-if the intake of energy is more as compared to expenditure it will cause obesity. Studies show that individual macronutrients (protein, fat and carbohydrate) exert differing effects on eating behaviour predominantly as a result of their effects on satiety. Fat has a weak satiating capacity, particularly when compared with protein, and subjects in experimental situations readily overeat when presented with high-fat foods (Lawton et al., 1993)

Obesity can cause following types of health problems;

Obesity is accompanied by profound changes in physiological function such as alterations in total blood volume, cardiac

functions, restricts respiratory excursion and alters respiratory functions.

Obesity is a major contributor to the development of hypertension, elevated plasma insulin concentrations and insulin resistance, diabetes mellitus and hyperlipidaemia.

Obesity is characterized by elevated fasting plasma insulin and an exaggerated insulin response to an oral glucose load (Kolterman et al., 1980)

An extra fat in the chest wall and abdomen has a predictable effect on the chest and the diaphragm and leads to an alteration of respiratory excursions during breathing, reducing lung volume and altering the pattern of ventilation to each region. In addition, the increased mass of fat leads to a decrease in compliance of the respiratory system as a whole. All of these changes are enlarged when an obese person lies flat.

Protective measures;

- Consumption of low-fat, high-fibre foods, fruit, vegetables, as well as nuts and whole grains and engaging in daily moderate physical activity for at least 30 minutes.
- cutting the amount of fatty and sugary foods in the diet.
- moving from saturated animal-based fats to unsaturated vegetable-oil based fats.
- regulating television viewing, computer/video usage for minimum time and even elimination of the television remote can keep help.
- eat properly at meal times, so that you do not feel hungry in between the meal times and fast food could be avoided.
- drinking adequate water and consumption of soups and vegetables.
- specially for children snacking is inevitable so the parents need not to worry about it or condemn and forbid the children from eating snacks. Instead of this, healthy snacks should be provided which include fruits, nuts, sprouts, vegetable frankies, roasted and steamed corns, etc.

CONCLUSION; In order to avoid obesity, it is advisable to take balanced diets, develop healthy eating habits and active lifestyle patterns. It should be kept in mind that pleasure of being trim and healthy is greater than pleasure of eating unwisely.

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