

# Obesity Shortens Life in Children and Adults

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A marked increase has occurred in the number of obese children, adolescents and adults in the American population over the past half century. Type 2 diabetes, formerly known as “adult-onset” diabetes, has become common in children as the obesity rate has increased over the past two decades. Other serious medical conditions – such as coronary artery disease, hypertension, heart attacks, strokes and some cancers – increase as the body mass index increases. Among different U.S. immigrant subgroups, the number of years of residence in the USA is associated with a higher BMI beginning after 10 years [1]. The prevalence of obesity among immigrants living in the U.S. for at least 15 years approaches that of U.S.-born adults. Early intervention with diet and physical activity is recommended [1].

Since obesity has clearly become a major personal and public health problem for Americans, it is important to be aware that obesity influences longevity. Current life expectancy at birth in the U.S. would be one-third to three-quarters of a year higher if all overweight adults were to attain their ideal weight [2]. The costs to society are astronomical. Taxpayers spent 39 billion dollars in 2003 on medical bills related to obesity [3]. One author decries the rising preva-

lence and severity of obesity because of their ability to offset the array of positive influences on longevity [4]. Dietz and Robinson [5] discuss in detail the clinical problem of overweight children and adolescents. Sullivan [6] reports that overweight children increase health care costs.

In a book on the pharmacotherapy of obesity, the authors assert that because of the global epidemic of obesity and its coexisting conditions, the need for effective obesity treatments has never been greater [7]. Current behavioral and dietary therapies frequently lead to insufficient weight loss to reduce risk factors such as hypertension and dyslipidemia. However, continue the authors, with the exception of bariatric surgery, treatments resulting in long-term maintenance of weight loss remain elusive. At the same time, advances in basic science have led to a better understanding of the pathways that affect energy balance and to the identification of a myriad potential central and peripheral drug targets. These facts are what motivated the authors to write a book on the pharmacotherapy of obesity. A book reviewer describes the book's six sections on the pathophysiology of obesity, general therapeutic aspects, benefits of weight loss, and drugs on the market, drugs in research and development, and treatment alternatives [8]. The reviewer points out that the chapter on antipsychotic drugs, weight gain and diabetes is especially timely.

In summary, obesity is a killer in children, adolescents and adults. It shortens life and predisposes to a variety of other serious and possibly fatal diseases and disorders such as diabetes, coronary artery disease, hypertension, stroke

and even sudden death. Obesity should be taken very seriously by the world community because it is in fact a global epidemic. Aggressive intervention is needed by individuals with obesity, by local, regional and federal public health organizations and by the medical profession. Education of the public on the dangers of obesity is essential to raise awareness of this serious condition and how to manage it. The claim that obesity will shorten life expectancy in the USA in the 21st century has been challenged by Preston [9] and other experts. Such combined efforts will hopefully lead to some improvements in the prevalence and severity of obesity. This condition can and should be conquered just as polio was over a half century ago.

Ludwig and Pollack [10] state that the U.S. economic crisis provides a unique opportunity to examine questions of fundamental importance to public health. They ask whether or not American society wishes to produce vast amounts of low quality foods, neglect the social infrastructure to support physical activity, and sustain the inevitable economic and social harms of obesity-related diseases. They further ask whether the authorities will use this opportunity to align economic and social policies with the interests of public health by implementing a comprehensive, national obesity strategy? These authors conclude that “failure to act now could ultimately cost society much more than even the subprime mortgage crisis” [10].

Another group of investigators performed a systematic review and meta-analysis of maternal overweight and obesity and the risk of congenital anomalies [11]. They concluded that maternal

BMI = body mass index

overweight and obesity is associated with an increased risk of a range of structural abnormalities, although the absolute increase is likely to be small. These authors recommend further research to confirm whether maternal overweight is also implicated [11]. Katan [12] discusses weight-loss diets for the prevention and treatment of obesity and concludes that obesity may be a problem that cannot be solved by individual persons but requires community action. Such community interventions may need a new approach for preventing and treating obesity. Such an approach must involve a total environmental strategy that involves and activates entire communities. The author laments the fact that the only effective alternative that we have for halting the obesity epidemic is large-scale gastric surgery [12]. A series of letters to the editor discuss obesity and the risk of death [13].

One may wonder whether or not vitamin and mineral supplementation in children contributes to obesity in adolescence [14]. Sweetened beverage consumption is another contributing factor to obesity. Should a tax be levied on such beverages to discourage their consumption? Allison and co-authors [15] have written on this subject, including the current evidence to support this contention and the plausibility of reducing nutritively sweetened beverage consumption by various methods that the authors propose.

The section on adolescent health of the American Academy of Pediatrics published a two-part clinical guide for pediatricians on Obesity in Adolescence. Part 1 focused on evaluation and management and part 2 discussed cardiometabolic risks of obesity in adolescence [16]. Metabolic syndrome in childhood is said to predict adult metabolic syndrome and type 2 diabetes mellitus 25 to 30 years later [17].

In conclusion, obesity in children, adolescents and adults is a major worldwide public health problem which requires aggressive intervention by health professionals and society as a whole.

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