

A new study provides a quantitative analysis of the impact of obesity on shortened life spans and on years of healthy life lost to obesity. Men who are 20-39 years of age with a BMI greater than 35 are likely to lose 8.4 years of life and 18.8 years of health based on these statistical models.

Years of life lost due to obesity related diabetes and cardiovascular disease

It is well established that excess bodyweight is associated with an increased risk of cardiovascular disease and type 2 diabetes. To go along with all the research studying and detailing this association, a study published in *The Lancet: Diabetes & Endocrinology* developed a meaningful metric to determine the effect these diseases have on quality of life and length of life.

A disease-simulation model was developed to estimate the annual risk of type 2 diabetes, cardiovascular disease, and mortality for individuals based on their BMI classification. The data was compiled from the National Health and Nutrition Examination Survey (NHANES), which included 3992 individuals over a period of seven years (2003-2010).

As seen in previous studies, this study also showed that excess bodyweight was positively associated with increased risk factors for cardiovascular disease and type 2 diabetes. Years of life lost as a result of these conditions ranged from 0.8 to 5.9 years in obese (BMI = 30 to <35) men and 0.9 to 8.4 years in very obese (BMI \geq 35) men, increasing with age. Years of life lost ranged from 1.6 to 5.6 years in obese (BMI = 30 to <35) women and 0.9 to 6.1 years in very obese (BMI \geq 35) women, increasing with age. Losses were smaller, but generally similar for overweight (BMI = 25 to <30) men and women. Healthy life-years (years free from premature disease) also decreased as a result of excess bodyweight, with totals ranging from two to four times higher than the total years of life lost.

While these results already reveal a lot about the potential impact of obesity on life expectancy and quality of life, they are actually conservative estimates. As they only take into account the risk factors associated with obesity on type 2 diabetes and cardiovascular disease. In the future, additional considerations must also be made for cancer, respiratory disease, hepatic disease, renal disease, and other diseases impacted by excess bodyweight.

Grover S, et al. Years of life lost and healthy life-years lost from diabetes and cardiovascular disease in overweight and obese people: a modeling study. *The Lancet: Diabetes & Endocrinology* (2014). DOI: [http://dx.doi.org/10.1016/S2213-8587\(14\)70229-3](http://dx.doi.org/10.1016/S2213-8587(14)70229-3).