Healthier lifestyles may increase lifespan even in people with multiple chronic conditions
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A very healthy lifestyle is associated with up to 6.3 years longer life for men and 7.6 years for women, regardless of the presence of multiple chronic conditions, according to a study published September 22 in the open-access journal *PLOS Medicine* by Yogini Chudasama of the University of Leicester, and colleagues. Credit: Yogini V. Chudasama

A very healthy lifestyle is associated with up to 6.3 years longer life for men and 7.6 years for women, regardless of the presence of multiple chronic conditions, according to a study published September 22 in the open-access journal *PLOS Medicine* by Yogini Chudasama of the University of Leicester, and colleagues. As noted by the authors, to their knowledge, this is the first study to quantify whether the risk of death associated with individual and combined risk factors depends on the presence of multiple chronic conditions.

The number of people living with two or more long-term physical or mental health conditions is rapidly increasing in number worldwide, and they have poorer health outcomes and a higher mortality risk. A healthy lifestyle has been associated with longer life expectancy, but it has not been clear if this is also the case in individuals with multiple chronic conditions. To address this gap in knowledge, Chudasama and colleagues analyzed data collected between 2006 and 2010 from 480,940 adults (median age of 58 years [range 38-73]) in the UK Biobank. The participants were followed up until 2016. The researchers assessed the presence of 36 chronic conditions and four self-reported lifestyle factors: leisure-time physical activity, smoking, diet, and alcohol consumption. Limitations include the observational nature of the study, which precludes conclusions regarding causality, and the non-representative sample, which was 95% white and more affluent than the general UK population.

In men with multiple chronic conditions, an unhealthy score was associated with a nonsignificant gain of 1.5 life years at 45 years compared to a very unhealthy score, while a healthy score was associated with a statistically significant gain of 4.5 years, and a very healthy score was associated with a statistically significant gain of 6.3 years. Corresponding estimates in women—3.5 years, 6.4 years, and 7.6 years—were all statistically significant gains. A healthier lifestyle was consistently associated with longer life expectancy across various individual risk factors and irrespective of the presence of multiple long-term medical conditions. Among individual lifestyle factors, no current smoking was associated with the largest survival benefit. At 45 years, current smokers had an estimated 5 to 6 years shorter life expectancy versus current non-smokers. The findings suggest that public health recommendations about adopting a healthy lifestyle to reduce the risk of developing chronic long-term conditions apply equally to individuals who already have multiple chronic conditions.

Dr. Chudasama says "More individuals are living..."
with multiple chronic conditions, impacting their health and daily lives. With access to a UK dataset of over 450,000 adults we were able to investigate the benefits of a healthy lifestyle in individuals with multiple illnesses. We found a healthy lifestyle, in particular abstinence from smoking, increased life expectancy by as much as 7 years. Our study has important implications for the public's health, as we hope our findings have shown that it's never too late to make vital lifestyle changes."


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