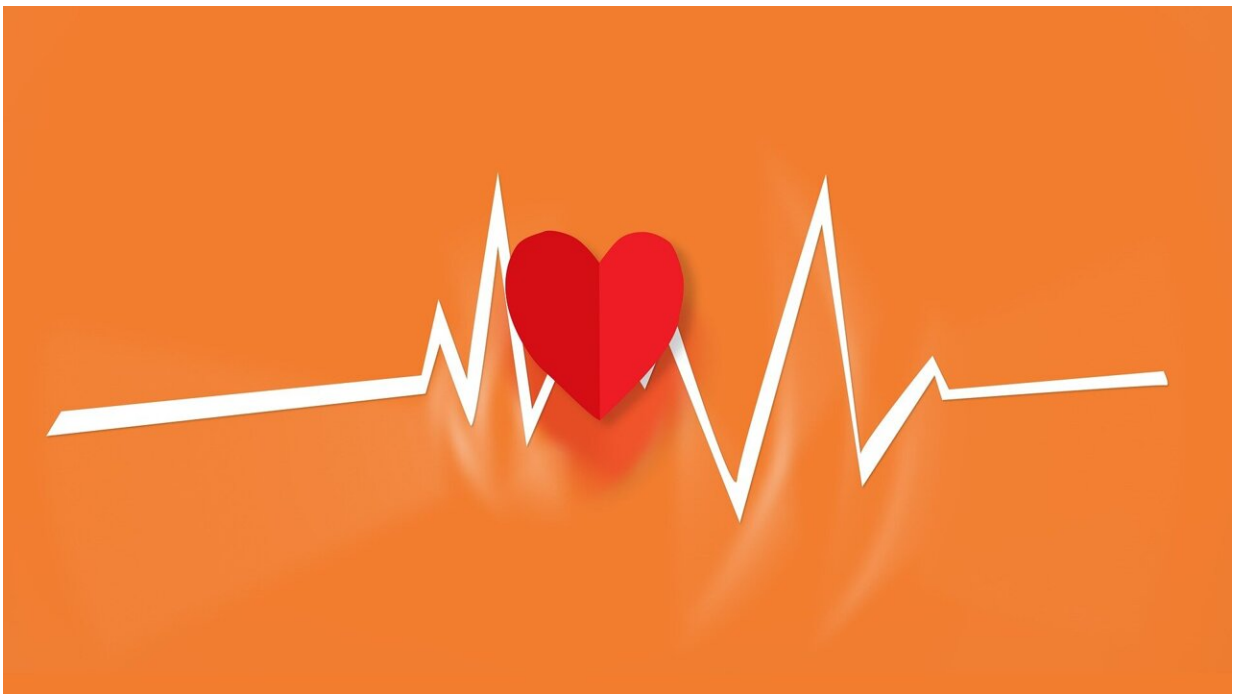


Analysis shows adults younger than 40 with ideal heart health had lower heart disease, stroke and kidney disease risk

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An analysis of health data for nearly 4 million young adults in Korea

found that those who had ideal cardiovascular health had about a 65% lower risk of developing heart disease, stroke or kidney disease later in life compared to people with low heart health scores, according to preliminary research presented at the American Heart Association's [Epidemiology and Prevention | Lifestyle and Cardiometabolic Scientific Sessions 2024](#), held March 18–21, in Chicago.

In a 2023 [scientific statement](#) and [presidential advisory](#), the American Heart Association highlighted the link between heart disease and [chronic kidney disease](#) and the importance of improving [cardiovascular health](#) to prevent them.

"Cardiovascular disease is deadly, and kidney disease is quite common, even among younger adults," said lead study author Hokyou Lee, M.D., Ph.D., an associate professor of preventive medicine at Yonsei University College of Medicine in Seoul, South Korea.

"These two diseases should be prevented together because they often coexist or increase the likelihood of one another. However, the importance of ideal heart health behaviors and factors in [young adults](#) have often been overlooked due to their lower short-term risk of cardiovascular and kidney diseases."

In this study, researchers reviewed data from the 2009–2010 Korean National Health Screening program to explore how cardiovascular health during young adulthood affects the risk of developing [heart disease](#), stroke and kidney disease later in life.

Participants' heart health was assessed and scored using the three modifiable lifestyle behaviors and three health measures: being physically active, maintaining a healthy weight and quitting tobacco and

[blood pressure](#), cholesterol and blood sugar, from the American Heart Association's [Life's Simple 7](#) metrics. (Note: In 2022, sleep health was added to the seven metrics in the Association's new [Life's Essential 8](#) measures for optimal cardiovascular health.)

The analysis found:

- Young adults with perfect heart health scores at enrollment had a 65% lower risk of developing cardiovascular or kidney disease during the 12-year follow-up compared to people with zero ideal cardiovascular health metrics. Note: In this study, a perfect heart health score was 6 out of 6 because a measure of diet was not available for participants.
- The risk of developing cardiovascular or kidney disease decreased gradually with higher heart health scores.
- People whose scores improved from low to high during follow-up also had a lower risk of developing cardiovascular or kidney disease compared to people who had consistently low heart health scores.

"Less than 1% of the young adults had ideal heart health scores at the beginning of the study, and, unfortunately, about half of those with perfect or near-perfect cardiovascular health eventually had lower heart health scores within a few years. However, fewer of the young adults with perfect or near-perfect cardiovascular health whose scores decreased experienced cardiovascular and kidney diseases than young adults who began with low heart health and remained that way," Lee said.

"Our study highlights the importance of achieving ideal cardiovascular health during young adulthood and maintaining or improving it throughout life. More effort is needed to raise awareness among young adults about implementing and maintaining heart-healthy lifestyle

behaviors early in life to help them live longer, healthier lives."

Study background information:

- The study included 3,836,283 adults in South Korea who did not have a history of cardiovascular or kidney disease.
- Participants self-identified as female (38.2%) and male (62.8%).
- Participants were ages 20–39 years old, with a median age of 31 at the beginning of the study.

The study's limitations included that it did not use the new Life's Essential 8 health metrics to define cardiovascular health. In addition, [dietary information](#) about participants was not available, and the study included only people living in South Korea, which limits the generalizability of the study's findings to other populations.

"The findings underscore the importance of early awareness of risk factors and intervention and the adoption of healthy lifestyle behaviors in young adulthood to prevent cardiovascular and kidney diseases later in life," said Monica C. Serra, Ph.D., an associate professor and research investigator in the department of medicine in the Division of Geriatrics, Gerontology & Palliative Medicine and the Sam and Ann Barshop Institute for Longevity and Aging Studies at UT Health San Antonio in San Antonio, Texas. Serra is co-chair of the program committee of EPI | Lifestyle Scientific Sessions 2024.

"Moreover, the research indicates that even individuals with initially low heart health scores who improved their cardiovascular health over time experienced a reduced risk of diseases compared to those with persistently low scores. This highlights the potential for positive health outcomes through lifestyle modifications."

"The use of the American Heart Association's Life's Simple 7 metrics,

including modifiable behaviors such as physical activity, weight management and tobacco cessation, along with biometric measures like blood pressure, cholesterol and [blood sugar](#), provides a comprehensive assessment of heart health. It is noteworthy that the study did not include dietary components, and the addition of sleep health in the Association's new Life's Essential 8 was acknowledged," she said.

"Overall, the research contributes valuable evidence to the importance of cardiovascular health maintenance in young adulthood for long-term disease prevention."

Provided by American Heart Association

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