

## **New online calculator estimates cardiovascular disease risk**

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The new Healthy Heart Score developed by researchers at Harvard School of Public Health (HSPH) gives individuals an easy method to estimate their 20-year risk of developing cardiovascular disease (CVD) based on simple lifestyle habits. The free web-based survey, which will be found at [healthyheartscore.com](http://healthyheartscore.com), also gives users practical tips for improving their scores by incorporating heart-healthy habits into their daily lives.

"Currently recommended risk models for CVD are harder for an individual to calculate on their own because they include clinical risk factors such as elevated cholesterol and blood pressure. These risk scores, which are mostly used in doctors' offices, often underestimate the burden of CVD among middle-aged adults, and women in particular," said Stephanie Chiuve, a research associate in the Department of Nutrition at HSPH and assistant professor in medicine at Harvard Medical School and Brigham and Women's Hospital. "The Healthy Heart Score is all about modifiable lifestyle risks, which may increase awareness of CVD prevention through lifestyle interventions earlier in life, prior to the development of clinical risk factors."

The study was published online November 14, 2014 in the *Journal of the American Heart Association*.

Despite being one of the leading causes of mortality and morbidity in the U.S. and globally, almost all CVD is preventable. Adults who remain free of clinical CVD risk factors when they are middle-aged have an extremely low risk of developing the disease for the rest of their life.

The model was developed using health data from 61,025 women in the Nurses' Health Study and 34,478 men in the Health Professionals Follow-up Study, who were free of chronic disease in 1986 and followed for up to 24 years. During the study period, there were 3,775 cases of CVD (including nonfatal myocardial infarction, fatal [coronary heart disease](#) and ischemic stroke) in women and 3,506 cases in men.

The Healthy Heart Score is based on the nine most critical diet and lifestyle factors that can influence a person's risk of developing CVD in the next 20 years: smoking, weight, exercise, and intake of alcohol, fruits and vegetables, whole grains, nuts, sugary beverages, and red and processed meat.

The calculator walks users through a series of easy-to-follow questions about their lifestyle, such as "Do you smoke cigarettes?" and "During the past year, how often, on average, do you eat a serving of fruit?" Users receive a risk score of low (green), moderate (yellow), or high (red), and a printable assessment with tips for improvement such as, "Instead of sliced deli turkey or chicken in sandwiches, try rotisserie chicken or roasted turkey," and "Try a variety of nuts, including almonds, pistachios and cashews."

"This tool represents the first time that data from large-scale, well-conducted studies were used to develop an easy-to-use CVD prevention tool," said Eric Rimm, professor of epidemiology and nutrition at HSPH and senior author of the study.

Other HSPH authors include Nancy Cook, JoAnn Manson, and Walter Willett.

**More information:** "A lifestyle-based prediction model for the prevention of CVD: The Healthy Heart Score," Stephanie E. Chiuve, Nancy R. Cook, Christina M. Shay, Kathryn M. Rexrode, Christine M. Albert, JoAnn E. Manson, Walter C. Willett, Eric B. Rimm, *Journal of the American Heart Association*, online Nov. 14, 2014, [DOI: 10.1161/JAHA.114.000954](https://doi.org/10.1161/JAHA.114.000954)

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