

Poor diet is top contributor to heart disease deaths globally

October 16 2020



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More than two-thirds of deaths from heart disease worldwide could be prevented with healthier diets. That's the finding of a study published today in the *European Heart Journal—Quality of Care and Clinical Outcomes*, from the European Society of Cardiology (ESC).

The findings come on World Food Day, which highlights the importance of affordable and sustainable healthy diets for all.

"Our analysis shows that unhealthy diets, high blood pressure, and high serum cholesterol are the top three contributors to deaths from heart attacks and angina—collectively called ischaemic heart disease," said study author Dr. Xinyao Liu of Central South University, Changsha, China. "This was consistent in both developed and developing countries."

"More than 6 million deaths could be avoided by reducing intake of processed foods, sugary beverages, trans and saturated fats, and added salt and sugar, while increasing intake of fish, fruits, vegetables, nuts and whole grains. Ideally, we should eat 200 to 300 mg of omega 3 fatty acids from seafood each day. On top of that, every day, we should aim for 200 to 300 grams of fruit, 290 to 430 grams of vegetables, 16 to 25 grams of nuts, and 100 to 150 grams of whole grains," she added.

The study analyzed data provided by the Global Burden of Disease Study 2017, which was conducted in 195 countries between 1990 and 2017.2 In 2017, there were 126.5 million individuals living with ischaemic heart disease, and 10.6 million new diagnoses of the condition. Ischaemic

heart disease caused 8.9 million deaths in 2017, which equates to 16% of all deaths, compared with 12.6% of all deaths in 1990.

Between 1990 and 2017, age-standardized prevalence, incidence and death rates per 100,000 people decreased by 11.8%, 27.4%, and 30%, respectively. But absolute numbers almost doubled. Dr. Liu said, "While progress has been made in preventing heart disease and improving survival, particularly in developed countries, the numbers of people affected continues to rise because of population growth and aging."

The investigators calculated the impact of 11 risk factors on death from ischaemic heart disease. These were diet, [high blood pressure](#), high serum, [low-density lipoprotein](#) (LDL) cholesterol, high plasma glucose, [tobacco use](#), high body mass index (BMI), [air pollution](#), low physical activity, impaired kidney function, lead exposure and alcohol use. Specifically, they estimated the proportion of deaths that could be stopped by eliminating that risk factor.

Assuming all other [risk factors](#) remained unchanged, 69.2% of ischaemic heart disease deaths worldwide could be prevented if healthier diets were adopted. Meanwhile, 54.4% of these deaths could be avoided if [systolic blood pressure](#) was kept at 110-115 mmHg, while 41.9% of deaths could be stopped if serum LDL was kept at 0.7-1.3 mmol/L. About a quarter of deaths (25.5%) could be prevented if serum fasting plasma glucose was kept at 4.8-5.4 mmol/L, while eradicating smoking and second-hand smoke could stop one-fifth (20.6%) of deaths from ischaemic heart disease.

Notably, tobacco use ranked as fourth highest contributor to ischaemic heart disease deaths in men, but only seventh in women. Between 1990 and 2017, the global prevalence of smoking decreased by 28.4% in men and 34.4% in women. High BMI was the fifth highest contributor to ischaemic heart disease deaths in women and sixth in men. For women,

18.3% of deaths from ischaemic heart disease could be prevented if BMI was kept at 20-25 kg/m². In both sexes, the percentage contributions of air pollution and lead exposure to age-standardized [ischaemic heart disease](#) deaths increased as the country of residence became less developed.

Dr. Liu said, "Ischaemic [heart disease](#) is largely preventable with healthy behaviors and individuals should take the initiative to improve their habits. In addition, geographically tailored strategies are needed—for example, programs to reduce salt intake may have the greatest benefit in regions where consumption is high (e.g., China or central Asia)."

More information: Haijiang Dai et al, Global, regional, and national burden of ischaemic heart disease and its attributable risk factors, 1990–2017: results from the Global Burden of Disease Study 2017, *European Heart Journal - Quality of Care and Clinical Outcomes* (2020). [DOI: 10.1093/ehjqcco/qcaa076](https://doi.org/10.1093/ehjqcco/qcaa076)

Provided by European Society of Cardiology

Citation: Poor diet is top contributor to heart disease deaths globally (2020, October 16) retrieved 26 April 2024 from

<https://medicalxpress.com/news/2020-10-poor-diet-contributor-heart-disease.html>

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