

Association between sugary diet and coronary artery disease

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What connection is there between food and drink with added sugar and coronary artery disease? Until recently, the question had been inadequately answered by research, but an extensive study from Lund University in Sweden has now contributed important clues.

The study in question focuses on sucrose. Sucrose occurs naturally in fruit and vegetables, but the majority of our consumption is through added sucrose. Besides sweetened beverages, cakes and sweets, sucrose is added to many ordinary foods, such as dairy products, bread and jam. In Sweden, sucrose is the most common form of added sugar.

"For the vast majority, the consumption of added sugar does not appear to be a problem with regard to what we studied, i.e. the risk of developing myocardial infarction or another serious heart disease. But for a small number of people with a high consumption of added sugar, the picture was different. Among the 5 per cent of participants who got at least 15 per cent of their daily energy intake from sucrose, the risk of [myocardial infarction](#) increased by about a third", explains Emily Sonestedt, nutrition researcher and associate professor at Lund University.

The general nutritional recommendations in Sweden state that no more than 10 per cent of our daily energy intake should come from added sugar.

The study does not establish a causal link between the amount of [sucrose](#)

and coronary artery disease. But in order to reduce the risk of erroneous conclusions, the results have been adjusted for factors traditionally associated with [cardiovascular disease](#). These include lifestyle, such as smoking, alcohol and exercise habits. Dietary consumption was also analysed and adjustments made for foods which are seen as linked to cardiovascular risk, such as meat, whole grains, fruit, vegetables and coffee.

"In the study, we wanted to investigate whether a correlation could be found between even a small overconsumption of added sugar and [coronary artery disease](#). In order to reflect reality as closely as possible, we focused on people's dietary intake as a whole and not only on selected foods such as sugar-sweetened beverages", continues Emily Sonestedt.

The basis for the research is a large population study, the Malmö Diet and Cancer Cohort Study, in which participants underwent health checks, answered questions on lifestyle and kept a food diary for a limited period of time. Follow-up was conducted for an average of 17 years, on a total of just over 26 000 participants with no known diabetes or cardiovascular disease.

Are there reasons to change the general dietary recommendations on the basis of the current findings?

"No, in my opinion there is currently very little to indicate that the prevalence of myocardial infarctions or other serious [heart disease](#) would be reduced if those who already follow the recommendations were to further limit their [sugar intake](#). However, it could be advisable to think about how to reach those whose consumption exceeds the current recommended level, and above all the major consumers of sweetened foods and drinks, through targeted initiatives."

How high is sugar consumption in Sweden today?

"There are previous studies which show that 40 per cent of the population consumes too much sugar, of which the majority have a slight overconsumption. There are also signs that the upward trend in [sugar consumption](#) has levelled off", concludes Emily Sonestedt.

The research team at Lund University will continue to investigate sugar and cardiovascular disease, including studies focusing on other diagnoses.

The study was presented in the *British Journal of Nutrition*, and financed by the Swedish Research Council, the Swedish Society for Medical Research and the Crafoord Foundation, among others.

More information: K. Warfa et al, Association between sucrose intake and acute coronary event risk and effect modification by lifestyle factors: Malmö Diet and Cancer Cohort Study, *British Journal of Nutrition* (2016). [DOI: 10.1017/S0007114516003561](https://doi.org/10.1017/S0007114516003561)

Provided by Lund University

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