

Are all saturated fats equally bad for the heart?

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A study in more than 100,000 individuals has found a potential link between eating saturated fat from meat and developing heart disease. The preliminary research is presented at ESC Congress 2021.



Study author Dr. Rebecca Kelly of the Nuffield Department of Population Health, University of Oxford, UK said: "The association seen between saturated fat and <u>cardiovascular disease risk</u> in <u>observational studies</u> has previously been unclear; our findings are important because they provide a possible explanation—that the relationship may vary depending on the <u>food source</u>. We found that saturated fat from meat may be associated with a higher risk than other food sources—in part because those consuming large amounts of meat also had a higher body mass index (BMI) than low consumers."

Cardiovascular disease is a leading cause of death and disability worldwide. Eating higher amounts of saturated fat is linked to elevated low-density lipoprotein (LDL) or "bad" cholesterol, which increases risk of <u>cardiovascular disease</u>. There is some evidence that different types of foods rich in saturated fat, particularly meat and dairy, may have differing associations with cardiovascular disease. Therefore, this study examined how saturated fat from various foods relates to ischaemic <u>heart disease</u>, stroke, and total cardiovascular disease (heart disease and stroke combined).

The study included 114,285 UK Biobank participants who were free of cardiovascular disease at the start of the study. Participants completed dietary assessments asking what they are the day before to estimate their usual intake of total saturated fat and saturated fat from different foods (e.g. dairy and meat). They also completed a detailed lifestyle questionnaire and had <u>blood samples</u> and body measurements taken.

The researchers tracked participants for around 8.5 years using information from linked hospital and death records to find out whether they developed cardiovascular disease. During the follow-up period, total cardiovascular disease, heart disease, and stroke occurred in 4,365, 3,394 and 1,041 participants, respectively.



The data were analysed to assess if there were any links between intake of total saturated fat and saturated fat from different foods and cardiovascular disease outcomes. The analyses accounted for multiple lifestyle, socioeconomic and medical factors.

There were no clear associations between total saturated fat and cardiovascular disease outcomes. However, consuming 5% higher total energy from saturated fat from meat was associated with 19% and 21% elevated risks of total cardiovascular disease and heart disease, respectively—but the associations did not remain significant after accounting for BMI. Researchers also found that associations of SFA from dairy with heart disease went in the opposite direction, but this association was not clear after accounting for BMI.

Dr. Kelly said: "Our results suggest that differences in BMI may be responsible, in part, for the association between cardiovascular disease and saturated fat from meat. It is not possible to determine whether this is because of a specific impact of saturated fat from meat on BMI or because those with a higher BMI consume more meat. In addition, it is difficult to fully disentangle whether part of the effect of saturated fat on cardiovascular disease may be through higher LDL cholesterol in this cohort because cholesterol-lowering medication use is high in UK adults."

Dr. Kelly concluded: "We recommend following the dietary guidelines advice to consume less than 10% of daily energy from saturated fat. Our findings emphasise the importance of studying the different <u>food</u> sources of saturated fat when examining risk of cardiovascular disease. Further research is needed to ensure that these observations were not influenced by dietary or non-dietary factors that were not measured in this study."

More information: Abstract title: Associations between saturated fatty



acids from different dietary sources and cardiovascular disease risk in 114,285 UK Biobank study participants.

Provided by European Society of Cardiology

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