



24 November 2016

The BMJ Press Release

High intake of saturated fats linked to increased coronary heart disease risk

Experts suggest replacing saturated fat with more healthy sources of energy

Consumption of major saturated fatty acids increases coronary heart disease risk, and these should be replaced with unsaturated fats, whole grain carbohydrates or plant proteins, as part of an effective preventive approach, suggests a large study published by **The BMJ** today.

The findings show that a higher intake of major saturated fatty acids, such as those found in hard cheese, whole milk, butter, beef, and chocolate, was associated with an increased risk of coronary heart disease.

Replacing 1% of the daily energy intake from the combined group of these major saturated fatty acids with equivalent energy from polyunsaturated fats, monounsaturated fats, whole grain carbohydrates, or plant proteins, was estimated to reduce coronary heart disease risk by 6-8%.

"Dietary recommendations should remain on replacing total saturated fat with unsaturated fats or whole grain carbohydrate, as an effective approach towards preventing coronary heart disease," say the researchers from Harvard University.

They analysed data from two large US longitudinal cohort studies that involved 73,147 women in the Nurses' Health Study between 1984-2012, and 42,635 men in the Health Professionals Follow-up Study between 1986-2010.

Dietary intake among participants was recorded every four years, along with incidence of coronary heart disease. Deaths were identified by searching the National Death Index or through next of kin or postal authority.

All participants were free from major chronic conditions and the study adjusted for a range of factors that may have influenced the results, such as demographic characteristics, and lifestyle factors.

Results show that the most commonly consumed major saturated fatty acids were lauric acid, myristic acid, palmitic acid and stearic acid, and accounted for around 9-10% of total energy in the participants. Each of these saturated fatty acids was associated with an increased risk of coronary heart disease.

Based on the relative risk estimates, the authors estimated the reduction in risk that would be associated with replacement of saturated fatty acids with more healthy nutrients.

For the difference of saturated fat intake between high vs low groups, the absolute risk reductions were estimated to be: 106 cases of coronary heart disease per 100,000 person years if replaced by polyunsaturated fat, 71 cases per 100,000 person years if replaced by monounsaturated fat, 83 cases per 100,000 person years for whole grain carbohydrates, and 95 cases per 100 000 person years for plant proteins.

For each 1% energy substitution, these risk reductions were 23 cases per 100,000 person years for polyunsaturated fat, 15 cases per 100,000 person years for monounsaturated fat, 18 cases per 100,000 person years for whole grain carbohydrates, and 20 cases per 100,000 person years for plant proteins.

This is an observational study so no firm conclusions can be made about cause and effect. Nevertheless, the authors say their results are in line with previous research that has shown the benefits of replacing saturated fatty acids with more healthy nutrients.

In an accompanying editorial, Canadian experts Russell de Souza and Sonia Anand say it's important to focus on a general healthy diet, rather than on specific nutrients, because "dietary patterns might be more consistent with how people consume nutrients, and these patterns can predict heart disease risk."

They explain that a focus on saturated fatty acids might result in diet that meets one target, for example, low in saturated fat, but fails to meet another, owing to a high intake of refined carbohydrates.

Dietary patterns have been advocated by national guidelines and "these new directions are a welcome improvement over single nutrient targets which, although of interest to nutrition scientists, are often confusing for the public, and undermine the effectiveness of dietary guidance."

[Ends]

Note to Editors

Research: Intake of individual saturated fatty acids and risk of coronary heart disease in US men and women: two prospective longitudinal cohort studies

<http://www.bmj.com/content/355/bmj.i6257>

About BMJ

BMJ is a healthcare knowledge provider that aims to advance healthcare worldwide by sharing knowledge and expertise to improve experiences, outcomes and value. For a full list of BMJ products and services, please visit [bmj.com](http://www.bmj.com).