

Should we cut the carbs and opt for fats?

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Recent media headlines claim that low-fat diets could increase your risk of early death by almost one quarter. Some media went so far as to question the validity of European dietary guidelines based on the results of a single study. However, the coverage is based on a study that mainly looked at people in lower- and middle- income countries outside Europe. As diets from these countries are considerably different, the results may not be relevant for the general European population.

The study

This study, published in the Lancet, investigated the effect of mainly carbohydrates and fats consumption on the risk of cardiovascular disease and early death.¹ It was carried out in 18 countries around the world, many of which were low and middle-income: 3 high, 11 medium, and 4 lower-income countries. Only 2 European countries were included: Sweden and Poland.

The study was large, looking at more than 135 thousand adults aged 35 to 70. At the study start, each participant completed food frequency questionnaires, adapted for each country, to measure food intake. The researchers then calculated the amount of each macronutrient consumed by the participants as a percentage of their total calorie intake. The study participants were divided into groups based on their consumption of fat, carbohydrate and protein, from highest consumption to the lowest.

Participants were followed up after three, six, and nine years to investigate disease rates. After adjusting for age, sex, physical activity, smoking, education level, and waist-to-hip ratio, the risk of death and cardiovascular disease related to diet was assessed.

Out of the 135 thousand adults, about 1,600 died from cardiovascular disease and a further 3,800 died from other causes. Concerning individual macronutrients, the researchers found that:

- The people who ate the most carbohydrates (77.2% of total calories) were 28% more likely to die than those eating the least (46.4% of total calories).
- Those who ate more total fat (35.3% of total calories) were 23% less likely to have died than individuals eating the least (10.6% of total calories).
- There was no association between fat or carbohydrate consumption and the risk of major cardiovascular disease.

Limitations

The study defines a high-fat diet as one including 35% of total calories from fat, which is within the upper-limit of what is recommended by the European Food Safety Authority (EFSA). The media reports that stated that this study contradicts current guidelines are false; the high-fat diet in this study is within the range of



current advice in Europe (albeit at the top end).

Similarly, the association between higher carbohydrate consumption and increased risk of death was seen in participants eating more than 60% of daily calories from carbs. This is higher than the current recommendations from EFSA, who advise to get 45-60% of energy from carbs.

The only European countries looked at in the study were Poland and Sweden. Diets in these countries are not representative of all European countries, some will have significantly different dietary patterns (e.g. Mediterranean countries).

Although the analysis was adjusted for some factors, there are many others that were not accounted for. For example, a high-carbohydrate, low-fat diet was linked to the accessibility and affordability of carbohydrates, making them more popular in low income countries. These are also the countries where other factors such as access to healthcare or poorer working conditions may also have contributed to the risk of early death.

The study only looked at adults aged 35 to 70, who may have different nutritional needs than other groups. A diet lower in carbs and higher in fat may not be as suitable for younger people.

General recommendations

Dietary fats are important for proper functioning of the body.³ The fat-soluble vitamins A, D, E and K cannot be absorbed by the body without the help of fats. Some fats (e.g. omega-3 and omega-6) are essential, as the body cannot produce them and therefore need to be obtained through diet. They are needed for vital processes such as brain, eye and heart function, growth and development.⁴

The European Food Safety Authority (EFSA) recommends a fat intake of between 20% and 35% of total energy intake, while the World Health Organisation (WHO) recommends an intake of less than 30% fat. Fat intake in infants can gradually be reduced from 40% of total energy intake in the second half of the first year, to 35-40% in the 2nd and 3rd year of life. This is to account for their specific developmental needs.²

Carbohydrates are an important part of a healthy and balanced diet. They can help to control our body weight, especially when combined with exercise. They are also vital for proper gut function and are an essential fuel for the brain and active muscles.⁵

EFSA recommends a carbohydrate intake of 45-60% of total energy intake for both adults and children. This includes carbohydrates from starchy foods, like potatoes and pasta, and simple carbohydrates, like sugars. Eating a variety of carbohydrate foods ensures that we get the maximum nutritional benefit.²