

In the news: Can a weekly portion of fried foods increase the risk of heart disease?

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A recent study generated media headlines claiming that eating even a small portion of fried foods - like a weekly portion of fries from a fast-food chain, can increase the risk of heart disease. What do we need to keep in mind when reading these headlines?

The study behind the news

The news headlines were based on a [systematic review](#), which brought together the results of 17 [observational studies](#) looking into the link between consuming fried foods and the risk of heart disease outcomes such as stroke, heart disease, heart failure or death resulting from any of these causes.¹

The researchers found that people who ate the most fried foods, comparing to those who ate the least, were 28% more likely to have a major cardiovascular event such as a stroke, heart disease, heart failure or death. More specifically, they had a 37% more chance of having heart failure and a 22% more risk of having coronary heart disease.

The results also pointed out that each additional portion of fried food per week – equivalent to 114 g of fried foods - increased the risk for any major cardiovascular event, heart failure and coronary heart disease by 3%, 12% and 2% respectively.

Why shouldn't we jump to conclusions when reading this study?

While this study builds on the importance of reducing the consumption of saturated and trans-fats - often present in high amounts in fried foods – to protect cardiovascular health, it's important to understand its limitations.

1. All data analysed were from “observational” studies which cannot prove direct cause-effect.

The 17 individual studies did not equally take into account other factors that may influence the risk of heart disease, such as the overall diet, physical activity, smoking and alcohol intake. It is therefore not possible to be sure that their effect has been completely removed and to prove that fried food intake alone directly increases the risk of cardiovascular events.

2. The consumption of fried foods was self-reported by participants of the studies using food intake questionnaires.

While food frequency questionnaires are the best method available for this type of research, they have some limitations. For example, they rely on people's memory and subjective assessments of portion size which may vary between individuals. Plus, when these questionnaires are only done once, they can't take into account how a person's diet may change over time.

3. There was a significant difference in the results of the included studies.

Each of the 17 individual studies collected the data and measured the results differently, making it more challenging to combine the results equally. For example, when measuring the consumption of fried foods, seven out of the 17 studies only looked at the consumption of fried fish, while three only considered potato fries and one fried snack. Although the researchers took this into consideration when combining the individual data, the results differed significantly between the studies, making it difficult to draw solid conclusions from the overall findings.

4. It is unclear what amount of fried food may be associated with higher cardiovascular risk.

The study does not define what qualified as the highest and lowest consumption of fried foods and what they are. Also, the nutritional quality and typical serving sizes of fried foods differ across cultures. It is therefore difficult to apply the findings and indicate what could be a "safe" level of consumption for fried foods without such clarifications.

How much fat should people eat?

A more robust way of looking at the consumption of fried foods is to look at the amounts of fats or energy included.

- WHO recommends that less than 30% of our daily energy intake should come from fats. Of those, only a maximum of 10% should come from saturated fats, commonly present in fatty meat, butter, cheese, cream and other full-fat dairy, palm oil, coconut oil. 3
- Trans fats found in baked and fried foods, and pre-packaged snacks and foods – such as frozen pizza, pies, cookies, biscuits and wafers, are not considered part of a healthy diet and are recommended to be avoided as much as possible (less than 1% of total energy intake).

More actionable guidance on healthy fat intake:

- [Dietary fats infographic](#)
- [8 facts on fats Q&A](#)
- [The functions of fats in the body](#)

- [Functions, classification and characteristics of fats](#)

References

1. [Qin P et al. \(2021\). Fried-food consumption and risk of cardiovascular disease and all-cause mortality: a meta-analysis of observational studies. Heart. Published online ahead of print 19 Jan 2021. DOI: 10.1136/heartjnl-2020-317883](#)
2. [EUFIC Review \(2014\). Functions, Classification and Characteristics of Fats.](#)
3. [World Health Organisation \(WHO\) \(2015\). Healthy Diet Factsheet N. 394](#)