Food neophobia may increase the risk of lifestyle diseases

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Food neophobia, or fear of new foods, may lead to poorer dietary

quality, increase the risk factors associated with chronic diseases, and thus increase the risk of developing lifestyle diseases, including cardiovascular diseases and type 2 diabetes.

These are some of the findings of a study conducted by the Finnish National Institute for Health and Welfare, the University of Helsinki, and the University of Tartu in Estonia.

Food neophobia is an eating behaviour trait in which a person refuses to taste and eat food items or foods they are not familiar with. The study examined the independent impact of eating behaviour, and especially food neophobia, on dietary quality as well as lifestyle diseases and their risk factors. So far, little research has been carried out on this area.

The study monitored individuals aged between 25 and 74 years in the Finnish FINRISK and DILGOM cohorts and an Estonian biobank cohort during a seven-year follow-up.

Food neophobia is hereditary

Food neophobia has been observed to be a strongly hereditary trait: twin studies have found that up to 78% of it may be hereditary. The trait can be easily measured using the FNS questionnaire (Food Neophobia Scale), which contains ten questions charting the respondent's eating behaviour. The FNS questionnaire was also used to measure and quantify the fear of new foods in this study.

Food neophobia is common in children and older persons, in particular. Few studies have so far been carried out on food neophobia in the adult population.

Traits similar to food neophobia, including picky and fussy eating, also occur in different age groups in the population. These eating behaviours

may also have a significant impact on dietary quality and subsequently health. As different traits associated with eating behaviours have overlapping characteristics making a clear-cut distinction between them is challenging.

Food neophobia has independent health impacts

The study found that food neophobia is linked to poorer dietary quality: for example, the intake of fibre, protein and monounsaturated fatty acids may be lower and the intake of saturated fat and salt greater in food neophobic individuals.

Additionally, a significant association was found between food neophobia and adverse fatty acid profile and increased level of inflammatory markers in blood. Subsequently, food neophobia also increases the risk of developing cardiovascular diseases or type 2 diabetes.

It is often thought that the impacts of eating behaviour and diet on health are mainly mediated through weight changes alone. In this study, however, the impacts of food neophobia emerged independently regardless of weight, age, socioeconomic status, gender or living area.

Your parents were right: you should always try all foods!

"The findings reinforce the idea that a versatile and healthy diet plays a key role, and even has an independent role in health. If we can intervene in deviant eating behaviours, such as food neophobia, already in childhood or youth. This will help to prevent potential future health problems early on," says Research Professor Markus Perola from the National Institute for Health and Welfare.

"Hereditary factors and our genotype only determine our predisposition to food neophobia. Early childhood education and care and lifestyle guidance in adulthood can provide support in the development of a diverse diet."

More information: Heikki V Sarin et al, Food neophobia associates with poorer dietary quality, metabolic risk factors, and increased disease outcome risk in population-based cohorts in a metabolomics study, *The American Journal of Clinical Nutrition* (2019). DOI: 10.1093/ajcn/nqz100

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