

Eating habits partly down to your genetics, finds new study

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Your food intake patterns are partly under genetic control, according to the latest research from researchers at King's College London, published today in the journal *Twin Research and Human Genetics*.

Researchers can study the quality of an individual's typical diet by using a type of analysis called 'dietary indices'. Researchers use dietary indices to understand what foods someone eats and the nutrients provided, compared with recommended guidelines.

The team analyzed [food](#) questionnaire responses from 2,590 twins, using nine commonly used dietary indices. The researchers studied the degree of similarity among [identical twins](#)—who share 100% of their genes—compared with non-identical twins, who share 50% of their genes.

The team found that identical twin pairs were more likely to have similar scores across nine dietary indices compared with non-identical twin pairs. This was the case even when other factors were taken into account, such as body mass index (BMI) and exercise levels. The results indicate that there

is a [genetic component](#) to food intake patterns.

First author Olatz Mompeó-Masachs from King's College London said, "We know from previous twin studies that there is a strong genetic component for specific foods such as coffee and garlic, as well as overall eating habits. Our latest study is the first to show that food and nutrient intake, as measured by nine dietary indices, is also partly under [genetic control](#)."

Senior author Dr. Massimo Mangino from King's College London said, "Our study represents the first comprehensive investigation of the contributions of genetic and environmental factors to the variation in eating behavior. It highlights the complex relationship between genetic and environment and may have future implications for public health nutrition campaigns.

"This study used food data from female twins only, with an average age of 58. Future research will need to look at dietary indices across a more varied group of people to see if the same findings hold true."

More information: Olatz Mompeo et al, Genetic and Environmental Influences of Dietary Indices in a UK Female Twin Cohort, *Twin Research and Human Genetics* (2021). [DOI: 10.1017/thg.2020.84](https://doi.org/10.1017/thg.2020.84)

Provided by King's College London

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