

# Genetic analysis suggests coffee intake not linked to migraine

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There seems to be no causal relationship between genetically predicted

coffee consumption and risk for migraine, according to a study published online Jan. 25 in *Frontiers in Genetics*.

Heng Chen, from Zhejiang University in Hangzhou, China, and colleagues examined the [causal relationship](#) between [coffee consumption](#) and [migraine](#) using a two-sample Mendelian randomization (MR) analysis. Nine single-nucleotide polymorphisms associated with coffee consumption at genome-wide significance were obtained from a [genome-wide association study](#) (GWAS) based on data from 375,833 individuals in the U.K. Biobank. Using the largest available GWAS of migraine, including 59,674 cases and 316,078 controls, summary-level data for any migraine and its subtypes (migraine with aura and migraine without aura) were obtained. Fixed-effect inverse-variance weighted was used as the main method to pool MR estimates.

Using the fixed-effect inverse-variance weighted method, the researchers observed no causal association for genetically predicted 50% increase in coffee consumption with the risks for any migraine, migraine with aura, or migraine without aura. Similar results were seen in sensitivity analyses.

"The present study reveals no causal effect of the genetic increase in coffee consumption on any type of migraine, and the results are consistent across sensitivity analyses," the authors write. "To our knowledge, this is the first MR study to explore the causal association between coffee consumption and the risk of migraine."

**More information:** Heng Chen et al, No Causal Association Between Coffee Consumption and Risk of Migraine: A Mendelian Randomization Study, *Frontiers in Genetics* (2022). [DOI: 10.3389/fgene.2022.792313](https://doi.org/10.3389/fgene.2022.792313)

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