Tied to Longer Life Study Finds 7 to 8 Cups a Day of Coffee, Tea, and Water

Researchers conducted an extensive prospective cohort study leveraging data from more than 182,000 UK adults to elucidate the relative associations between the world's three most popular beverages, tea, coffee, and water, and subsequent mortality risk.

Study findings suggest that a total liquid (beverage) intake of 7-8 drinks daily is associated with the lowest mortality risk. Notably, consuming either coffee or tea in isolation is not as strongly associated with reduced mortality as their combined intake. Specifically, a balanced combination of coffee and tea, in a roughly 2:3 ratio, was linked to the lowest risk of death from all causes and several specific diseases.

Study

The present study aims to address this need and inform future beverage consumption (practice and policy) by leveraging the relatively novel “compositional data analysis framework” to model the health effects of substituting one beverage (coffee, tea, or water) for another, thereby providing more specific and actionable guidance on the optimal total intake and the ideal balance between them.

The study utilized data from the UK Biobank, an extensive, population-based cohort study that represents the nation's health. Participants were eligible if they had completed at least one 24-hour dietary recall, with exclusions for implausible energy intake, missing beverage data, or withdrawal from the Biobank. In total, 182,770 adults were included.

Data collection was carried out using multiple 24-hour recalls between 2009 and 2012, with data of interest including sociodemographic factors (e.g., age, sex, ethnicity), medical history (e.g., metabolic syndrome), and detailed dietary information. Study outcomes, measured over ~13.3 years of follow-up, included incidents of mortality as well as specific causes of mortality.

Multivariate Cox modeling within a compositional data analysis framework was used to analyze the relative consumption of coffee, tea, and plain water. This allowed for the simultaneous assessment of both the effect of the total volume of these three drinks consumed per day and the impact of the proportional mix between them. Models were adjusted for potential confounders, including demographics, lifestyle factors, and pre-existing health conditions.

Results

The study analysis revealed a clear optimal fluid intake of 7 to 8 drinks per day, comprising coffee, tea, and plain water, combined. Compared to those with a low intake (fewer than four drinks per

day), this optimal volume was associated with a 28% lower risk of death from all causes (HR 0.72; 95% CI, 0.66-0.79).

Notably, the ratio between the beverages was as crucial as, or more so than, the volume itself. When total intake was adequate (more than four drinks per day), substituting plain water with either coffee or tea was associated with a further reduction in mortality.

The most protective combination was a balanced intake of coffee and tea in a roughly 2:3 ratio. This mix was associated with the lowest risks of:

- All-cause mortality (HR 0.55; 95% CI, 0.47-0.64)
- Cancer mortality (HR 0.59; 95% CI, 0.48–0.72)
- CVD mortality (HR 0.69; 95% CI, 0.49–0.99)
- Respiratory disease mortality (HR 0.28; 95% CI, 0.15-0.52)
- Digestive disease mortality (HR 0.35; 95% CI, 0.15–0.82)

However, the study also cautioned that when total intake exceeded nine drinks per day, replacing plain water with coffee or tea was associated with a potential increase in cardiovascular mortality risk.

Conclusion

The present study provides a nuanced perspective on the healthy consumption conundrum posed by three of the world's most popular beverages. Study findings suggest that to maximize health benefits, consumers should primarily focus on achieving an adequate total fluid intake (7-8 drinks per day).

Once this hydration requirement is met, the evidence indicates that replacing plain water with a balanced mix of coffee and tea (2:3 ratio) was associated with the greatest reduction in mortality risk. At lower intake levels (fewer than four drinks daily), however, substituting water with coffee or tea did not confer clear benefits.

The authors note that these findings are observational and cannot establish causation. Limitations include reliance on self-reported dietary data and lack of detail on beverage preparation (e.g., with or without sugar or milk).

Source:

https://www.news-medical.net/news/20250924/Study-finds-7-to-8-cups-a-day-of-coffee-tea-and-water-tied-to-longer-life.aspx