Habitual coffee consumption and risk of heart failure: a dose-response meta-analysis.

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Habitual coffee consumption and risk of heart failure: a dose-response meta-analysis.

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Authors
Mostofsky, E, Rice, MS, Levitan, EB, Mittleman, MA

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Abstract

BACKGROUND: There have been discrepant findings on the association between coffee consumption and risk of incident heart failure.

METHODS AND RESULTS: We conducted a systematic review and a dose-response meta-analysis of prospective studies that assessed the relationship between habitual coffee consumption and the risk of heart failure. We searched electronic databases (MEDLINE, Embase, and CINAHL) from January 1966 through December 2011, with the use of a standardized protocol. Eligible studies were prospective cohort studies that examined the association of coffee consumption with incident heart failure. Five independent prospective studies of coffee consumption and heart failure risk, including 6522 heart failure events and 140 220 participants, were included in the meta-analysis. We observed a statistically significant J-shaped relationship between coffee and heart failure. Compared with no consumption, the strongest inverse association was seen for 4 servings/day and a potentially higher risk at higher levels of consumption. There was no evidence that the relationship between coffee and heart failure risk varied by sex or by baseline history of myocardial infarction or diabetes.

CONCLUSIONS: Moderate coffee consumption is inversely associated with risk of heart failure, with the largest inverse association observed for consumption of 4 servings per day.

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