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1: <u>JAMA.</u> 2000 May 24-31;283(20):2674-9. Comment in: <u>JAMA. 2000 Sep 20;284(11):1378-9.</u>

Association of coffee and caffeine intake with the risk of Parkinson disease.

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CONTEXT: The projected expansion in the next several decades of the elderly population at highest risk for Parkinson disease (PD) makes identification of factors that promote or prevent the disease an important goal. OBJECTIVE: To explore the association of coffee and dietary caffeine intake with risk of PD. DESIGN, SETTING, AND PARTICIPANTS: Data were analyzed from 30 years of follow-up of 8004 Japanese-American men (aged 45-68 years) enrolled in the prospective longitudinal Honolulu Heart Program between 1965 and 1968. MAIN OUTCOME MEASURE: Incident PD, by amount of coffee intake (measured at study enrollment and 6-year follow-up) and by total dietary caffeine intake (measured at enrollment). RESULTS: During follow-up, 102 men were identified as having PD. Age-adjusted incidence of PD declined consistently with increased amounts of coffee intake, from 10.4 per 10,000 person-years in men who drank no coffee to 1.9 per 10,000 person-years in men who drank at least 28 oz/d (P<.001 for trend). Similar relationships were observed with total caffeine intake (P<.001 for trend) and caffeine from non-coffee sources (P=.03 for trend). Consumption of increasing amounts of coffee was also associated with lower risk of PD in men who were never, past, and current smokers at baseline (P=.049, P=.22, and P=.02, respectively, for trend). Other nutrients in coffee, including niacin, were unrelated to PD incidence. The relationship between caffeine and PD was unaltered by intake of milk and sugar. CONCLUSIONS: Our findings indicate that higher coffee and caffeine intake is associated with a significantly lower incidence of PD. This effect appears to be independent of smoking. The data suggest that the mechanism is related to caffeine intake and not to other nutrients contained in coffee. JAMA. 2000;283:2674-2679.