Changes in caffeine intake and long-term weight change in men and women

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The long-term effects of caffeine intake on weight have not been examined prospectively.

OBJECTIVE: The objective was to assess the relation between caffeine intake and 12-y weight change.

DESIGN: We conducted a prospective study of 18 417 men and 39 740 women, with no chronic diseases at baseline, who were followed from 1986 to 1998. Caffeine intake was assessed repeatedly every 2-4 y. Weight change was calculated as the difference between the self-reported weight in 1986 and in 1998.

RESULTS: The participants reported a change in caffeine intake that varied across quintiles, from decreases of 296 and 342 mg/d to increases of 213 and 143 mg/d in men and women, respectively. Age-adjusted models showed a lower mean weight gain in participants who increased their caffeine consumption than in those who decreased their consumption, but the differences between extreme quintiles were small: -0.43 kg (95% CI: -0.17, -0.69) in men and -0.41 kg (95% CI: -0.20, -0.62) in women. After adjustment for potential confounders and baseline and change in total energy intake and other nutrients and foods, the differences remained similar for men and diminished slightly for women (men: -0.43 kg; 95% CI: -0.17, -0.68; women: -0.35; 95% CI: -0.14, -0.56). An increase in coffee and tea consumption was also associated with less weight gain. In men, the association between caffeine intake and weight was stronger in younger participants (P for interaction < 0.001); in women, the association was stronger in those who had a body mass index (in kg/m(2)) >/=25, who were less physically active, or who were current smokers (P for interaction < 0.001).

CONCLUSION: Increases in caffeine intake may lead to a small reduction in long-term weight gain.

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