were found between cumulative average UPF intake and CHD or all-cause mortality. In UK midlife adults, higher UPF intake is prospective associated with increased CHD risk. Although additional research is warranted, these findings emphasize the importance of public awareness and food policy interventions to reduce UPF intake for alleviating the population burden of CVD.

Key messages:

- Our study suggests the need for increased efforts to implement population wide strategies on regulating food processing, such as taxation and front of package warning labelling of UPF.
- Our study emphasizes UPF's role in cardiovascular prevention, highlighting the need for nutrition counseling on UPF consumption for those at risk of CVD.

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Ultra-processed food consumption and risk of coronary heart diseases: UK Whitehall II cohort study

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In recent decades, ultra-processed foods (UPFs) intake has increased drastically, sparking concerns about their potential impact on cardiometabolic diseases. However, large-scale cohort studies tracking UPF consumption at multiple time points remain limited. This study explores the prospective association between repeated measures of UPF intake and the risk of coronary heart disease (CHD), along with its secondary endpoints, within the UK Whitehall II study. The analytical sample tracked 7,138 midlife British participants without CHD from baseline. UPF consumption was measured using validated food frequency questionnaire (127 items) and classified by the NOVA system during three phases: 1991/1994 (phase 3), 1997/1999 (phase 5), and 2002/2003 (phase 7). This study assessed the onset of CHD and its secondary endpoints, including CHD and all-cause mortality, through medical exams and hospital records up to 2016 and 2021, respectively. Cox proportional hazards regression models adjusted for socio-demographics, lifestyle factors and total energy intake were used to explore the prospective association between cumulative average UPF intake (in quintiles) and CHD outcomes. During a median follow-up of 13 and 19 years, 589 cases and 1,314 deaths were documented. In multivariable adjusted cox models, the highest UPF consumption quintile versus the lowest quintile was associated with higher CHD incidence [HR:1.26; 95% Confidence Interval (CI): 1.02-1.55; $p = 0.03$]. Additional adjustment of total energy intake increased the CHD risk by 28% [HR:1.28; 95% CI: 1.03-1.58; $p = 0.02$]. No significant relationships