

# Mediterranean alcohol-drinking pattern, low to moderate alcohol intake and risk of atrial fibrillation in the PREDIMED study

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## Abstract

**Background and aims:** There is ongoing controversy about the effect of a low to moderate alcohol consumption on atrial fibrillation (AF). Our aim is to assess the association between adherence to a Mediterranean alcohol drinking pattern and AF incidence.

**Methods and results:** A total 6527 out of the 7447 participants in the PREDIMED trial met our inclusion criteria. A validated frequency food questionnaire was used to measure alcohol consumption. Participants were classified as non-drinkers, Mediterranean alcohol drinking pattern (MADP) (10-30 g/d in men and 5-15 g/day in women, preferably red wine consumption with low spirits consumption), low-moderate drinking (<30 g/day men y and < 15 g/day women), and heavy drinking. We performed multivariable Cox regression models to estimate hazard ratios (HR) with 95% confidence intervals (95%

CI) of incident AF according to alcohol drinking patterns. After a mean follow up of 4.4 years, 241 new incident AF cases were confirmed. Alcohol consumption was not associated to AF incidence among low-moderate drinkers (HR: 0.96; 95%CI: 0.67-1.37), adherents to MADP (HR: 1.15 95%CI: 0.75-1.75), or heavy drinkers (HR: 0.92; 95%CI: 0.53-1.58), compared with non-drinkers.

**Conclusions:** In a high cardiovascular risk adult population, a Mediterranean alcohol consumption pattern (low to moderate red wine consumption) was not associated with an increased incidence of AF.

**Clinical trials:** URL: <http://www.controlled-trials.com>. Unique identifier: ISRCTN35739639.

**Keywords:** Alcohol; Antioxidant; Atrial fibrillation; Mediterranean; Red wine.

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