Conclusions: Alcohol intake was associated with higher plasma and red blood cell concentrations of marine n-3 FAs. Components of wine other than the EPA + DHA index in red blood cells (P < 0.0001 and P = 0.037, respectively). In men, only plasma and red blood cell EPA concentrations were associated with alcohol intake (P = 0.003 and P = 0.004, respectively). Stratified analyses showed an association between alcohol and both plasma and red cell EPA (P = 0.008 and P = 0.002, respectively), DHA (P = 0.014 and P = 0.008, respectively), and the EPA + DHA index (P < 0.0001 and P = 0.01, respectively).

Design: In the framework of the IMMIDIET (Dietary Habit Profile in European Communities with Different Risk of Myocardial Infarction: the Impact of Migration as a Model of Gene-Environment Interaction) Project, 1604 subjects (802 women-men pairs), aged 26-65 y, were enrolled in Italy, Belgium, and England. A 1-y-recall food-frequency questionnaire was used to evaluate dietary intake.

Results: In fully adjusted multivariate analyses, alcohol intake was positively associated with plasma eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). The positive association was similar in women and men.

Death, the alcohol-associated increase in blood n-3 FAs could be considered an original mechanism of alcohol's cardioprotective effect.