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## IS RESVERATROL THE SOLUTION TO THE FRENCH PARADOX?

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In France, despite high risk from myocardial infarction (MI) consequent upon smoking, lack of exercise and a high-fat diet, the incidence of MI is much lower than in N. America. This 'French Paradox' has been attributed to their high consumption of red wine known to contain phenolic constituents (resveratrol is among the most potent) which confer protection against MI. To test the hypothesis that resveratrol is an effector of 'The French Paradox', 8 subjects completed the following schedule: abstinence (2 weeks); commercial grape juice low in resveratrol (4 weeks); the same juice fortified with resveratrol to 4 ng/ml (4 weeks); abstinence (2 weeks); white wine low in resveratrol (4 weeks); red wine with resveratrol 4 ng/ml (4 weeks). Venous blood was taken bi-weekly and the following assays were performed on plasma: total cholesterol, HDL-cholesterol, LDL-cholesterol, apolipoproteins AI, AII, B and (a).

Neither grape juice formulation affected the above constituents. HDL-cholesterol was increased by white wine ( $P < 0.07$ , NS) and more so by red wine ( $P < 0.01$ ). After white wine, apo AI concentrations were higher than at the start of the schedule ( $P < 0.01$ ). Red wine raised apo AI further ( $P < 0.03$  vs entry and  $< 0.002$  vs start of white wine schedule). These data confirm the elevation of HDL-cholesterol and apo AI concentrations resulting from moderate alcohol consumption. They failed to demonstrate a beneficial effect of grape-juice. The enhanced effects of red compared with white wine could be a consequence of longer alcohol consumption, or to the high resveratrol content of the former.

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