

Comparison of fat intake in Australian and New Zealand CHD patients: the LIPID (long term intervention with Pravastatin in ischaemic disease) study

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Background: Patients with coronary heart disease (CHD) are advised to reduce their intake of foods rich in saturated fatty acids (SFA) and substitute foods rich in complex carbohydrates, polyunsaturated fatty acids (PUFA) and monounsaturated fatty acids (MUFA).

Methods: In the LIPID Study, 9014 patients were randomised to Pravastatin 40mg/day or placebo and followed up for a mean of 6 years. Dietary advice was given to all patients to reduce fat intake to less than 30% of energy intake, with equal amounts of SFA, PUFA and MUFA. Mortality and CHD event rates were higher in New Zealand patients. Baseline characteristics of patients were similar in both countries. However in New Zealand, median low-density lipoprotein cholesterol was higher (3.95 vs 3.81 mmol/L, $P = 0.0002$) and high-density lipoprotein cholesterol was lower (0.88 vs 0.94 mmol/L, $P < 0.001$). A validated questionnaire was used to assess adherence to the diet in three different years (1991, 1992, 1995) in 1077, 951 and 849 patients respectively.

Diet Components	Australia		New Zealand		P
	n	Mean \pm SD	n	mean \pm SD	
Energy 1991 (MJ/day)	684	8 \pm 2	393	9 \pm 2	<0.001
Energy 1995 (MJ/day)	532	7 \pm 2	317	8 \pm 2	0.001
SFA 1991 (g/day)	684	23 \pm 11	393	28 \pm 13	<0.001
SFA 1995 (g/day)	532	22 \pm 9	317	24 \pm 9	0.001
MUFA 1991 (g/day)	684	22 \pm 10	393	25 \pm 9	<0.001
MUFA 1995 (g/day)	532	21 \pm 8	317	22 \pm 7	0.002
PUFA 1991 (g/day)	684	13 \pm 7	393	14 \pm 7	0.001
PUFA 1995 (g/day)	532	12 \pm 6	317	13 \pm 6	0.03

Results: Total energy intake was higher in New Zealand in 1991, 1992 and 1995 and declined in both countries. Total fat and SFA and MUFA in absolute amounts and as a percentage of energy intake were higher in New Zealand. PUFA, as a percentage of energy intake, were similar in both countries.

Conclusions: The higher intake of fat in New Zealand patients may partly explain the higher CHD event rates observed in the LIPID Study.

Key words: New Zealand, CHD, energy intake