

Effects of three months' diet after diagnosis of Type 2 diabetes on plasma lipids and lipoproteins (UKPDS 45). UK Prospective Diabetes Study Group.

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**AIMS:** To assess the effect of diet on fasting plasma lipids and lipoproteins in patients with newly diagnosed Type 2 diabetes. **METHODS:** A total of 2,906 patients each underwent 3 months' diet therapy before allocation to therapy in a randomized controlled clinical trial. Lipids and lipoproteins were measured at diagnosis and after 3 months' diet. **RESULTS:** The mean body weight at diagnosis was 83 kg. Weight decreased after diet by a mean of 4.5 kg; body mass index (BMI) decreased by 1.51 kg/m<sup>2</sup>; plasma glucose fell by 3 mmol/l from 11 mmol/l; and HbA<sub>1c</sub> by 2% from 9%. Triglyceride concentrations were reduced in men by -0.41 (95% confidence interval (CI) -0.47 to -0.35) mmol/l from a geometric mean 1.8 (1 SD interval 1.0–3.0) mmol/l, and in women by -0.23 (-0.28 to -0.18) mmol/l from a similar level. Cholesterol decreased in men by -0.28 (-0.33 to -0.24) mmol/l from 5.5 (1.1) mmol/l, and in women by -0.09 (-0.14 to -0.04) mmol/l from 5.8 (1.2) mmol/l with corresponding changes in LDL cholesterol. HDL cholesterol increased in men by 0.02 (0.01 to 0.04) mmol/l and in women by 0.01 (0 to 0.02) mmol/l. Triglyceride concentration in the top tertile was reduced by 37% in men (> 2.1 mmol/l) and by 23% in women (> 2.2 mmol/l) with regression to mean accounting for 13% and 6%, respectively. Similarly cholesterol in the top tertile was reduced by 12% in men (> 5.8 mmol/l) and 7% in women (> 6.2 mmol/l) with 6% of the decrease in both men and women accounted for by regression to the mean. **CONCLUSIONS:** Initial dietary therapy in patients with newly diagnosed Type 2 diabetes substantially reduced plasma triglyceride, marginally improved total cholesterol and subfractions, and resulted in a potentially less atherogenic profile, although this did not eliminate the excess cardiovascular risk in patients with Type 2 diabetes.