

bose mode when a test result is below some threshold that suggests mental confusion.

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## Lipid and Lipoprotein Levels in Young IDDM Patients

In a recent report of the DCCT Research Group (1), minor differences in lipid and lipoprotein levels were found comparing young (13-40 yr of age) IDDM volunteers with control values of the LRC program. Only in young females with relatively higher HbA<sub>1c</sub> levels were elevated cholesterol, LDL-cholesterol, and TG values observed.

However, more profound differences in lipid levels between diabetic and nondiabetic populations have been noted in older studies. The authors (1) comment on this discrepancy—that a major change in dietary habits during the past 10-20 yr with a decrease in fat and increase in carbohydrate intake may play an important role.

In 1979, we investigated the lipid and lipoprotein levels in diabetic children (8-12 yr of age, n = 30) at a summer camp of 4-wk duration (2). Their caloric intake and dietary pattern was monitored by a dietitian. The mean caloric intake was 2793 ± 814 cal/day, consisting of 40-45% fat, 20-25% protein, and 35-40% carbohydrate. The distribution of calories differed clearly from the current dietary advice and practice.

The mean HbA<sub>1c</sub> was 9.8 ± 0.4% (normal range 4.6-6.6%); the mean insulin dosage was 0.8 ± 0.29 U/kg. Only on admission day did we observe increased total cholesterol (P < 0.05) and TG in females and elevated TG levels in males, compared with lipid levels of 64 healthy children. These differences were no longer apparent after 4 wk camping on the rather fat-rich diet described above; and total cholesterol, HDL cholesterol, LDL cholesterol, VLDL cholesterol, and TG were in the normal range for boys and girls.

This observation, although made among only a small group of patients, indicates that in otherwise healthy and normally active young diabetic patients with moderate metabolic control, lipid and lipoprotein levels are in the normal range. In accordance with the DCCT study, the evidence indicates that females may be more prone to alterations of the lipid levels in this age group. Changes in dietary habits may only partly explain the lower lipid levels reported by DCCT study (1).

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DCCT, DIABETES CONTROL AND COMPLICATIONS TRIAL; IDDM, INSULIN-DEPENDENT DIABETES MELLITUS; LDL, LOW-DENSITY LIPOPROTEIN; TG, TRIGLYCERIDES; HDL, HIGH-DENSITY LIPOPROTEIN; VLDL, VERY-LOW-DENSITY LIPOPROTEIN.

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## Response to Dr. Schober

We read with great interest the comments by E. Schober comparing the baseline lipid and lipoprotein measurements of the DCCT cohort (1) with lipid data from IDDM children attending a summer camp in 1979 (2). There are several notable differences between the DCCT study cohort and the population studied by Scrober et al. (2), including differences in nationality and period of study, and younger age (2-12 yr) in the Austrian study. Despite these differences, we consider the results with regard to lipid measurements to be mutually confirmatory. At baseline, the 19 Austrian children had lipid values that were similar to a nondiabetic population except for higher TG levels in the diabetic girls and boys. The diabetic girls had a slightly higher total cholesterol than the diabetic boys, although no significant difference was observed in total cholesterol between the diabetic and nondiabetic girls. Of note, a study by