

THE SERUM LIPID LEVELS OF CENTRAL AMERICANS COMPARED WITH THOSE

OF NORTH AMERICAN ADULTS. George V. Mann, J. Antonio Muñoz^a and

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Serum lipoprotein and cholesterol levels and the dietary intakes of 261 Central Americans (208 males) ranging in age from 16 to 90 years and living in Guatemala and El Salvador have been compared with an age-matched group of 856 North American males and 265 females living under very different cultural and economic conditions. Dietary surveys of the Central American groups indicate that only 7 to 14% of their daily caloric intake of 2,000 to 2,500 was derived from fat as compared with the 30 to 40% of the 2,500 to 3,000 calories consumed daily by North Americans. Although satisfactory quantitative studies are lacking, atherosclerosis is believed to be much less common in Central America than in North America where its great prevalence is well established. The mean serum cholesterol values were significantly lower in the Central American males as illustrated by a mean value of 153 mg.% for 35 Central American males age 40-48 years to be contrasted with a mean of 234 mg.% for 254 North American males of the same age. However, no significant differences between Central American and North American males were found in the levels of lipoprotein molecules of the classes S_{f12-20} , S_{f21-35} and $S_{f35-100}$. Although the females of each group revealed lower serum lipids than the corresponding males, the same disparity of cholesterol levels between the geographic groups was seen. While these data are not sufficient to permit the evaluation of the relative importance of dietary fat, caloric intake and genetic differences in atherosclerosis, they do reveal a striking degree of disassociation between serum cholesterol and serum lipoprotein values. This observation may be of critical importance in evaluating the prediction value of such measurement in atherosclerosis.